



Military Installation Public-to-Public Partnerships

Lessons from Past and Current Experiences

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Preface

RAND was asked to conduct a study on the use of public-to-public partnerships (PuPs) by military installations. The objective was to clarify the potential value of PuPs to Department of Defense (DoD) installations; identify barriers to their cost-effective application in DoD; recommend ways to overcome these barriers; and provide an overview of the focuses, approaches, and lessons learned from existing installation PuPs. This report documents the study results providing background information about partnerships, explains the different approaches and authorities used for installation PuPs, gives an overview of the wide range of existing installation partnership types by functional areas and partners, describes the many diverse benefits to installations and communities from PuPs, and discusses the opportunities for future installation partnerships. It also explains the barriers to developing and implementing installation partnerships and provides recommendations for addressing such barriers so installations and communities can develop and implement more mutually beneficial partnerships.

This report should be of interest to congressional and military leaders; policymakers; decisionmakers, installation staff, and managers across DoD; and community leaders and staff who have an interest in installation partnerships.

This research was cosponsored by the Office of the Secretary of Defense, the U.S. Navy, the U.S. Air Force, and the U.S. Army Office of the Assistant Chief of Staff for Installation Management (the executive agent for the study) and was conducted within the RAND Arroyo Center's Strategy, Doctrine, and Resources Program. RAND Arroyo Center, part of the RAND Corporation, is a federally funded research and development center sponsored by the U.S. Army.

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Summary

Background and Purpose

U.S. military installations have a long history of collaborating with surrounding communities. Installations have established many partnership agreements with local, state, and other federal government organizations for mutual benefit, called installation public-to-public partnerships (PuPs). These PuPs are commonly used for installations and communities to acquire and share services, expertise, and capabilities with one another. Such partnerships provide installations and their partners with a range of benefits, including reducing or avoiding costs, improving services, accessing specialized equipment and capabilities, and improving community-installation cooperation.¹

As defense budgets decline, military installations need to find novel and creative ways to manage and operate installations, sustain military missions, and provide installation services, especially to military personnel and their families. Similarly, communities have also experienced budget declines because of the economic downturn over the last eight years and see potential cost savings and other benefits from partnering with installations. Installation PuPs are viewed as one approach to sustaining operations and services for both military installations and communities that are dealing with declining budgets. By leveraging each other's strengths through partnerships, military installations and communities seek opportunities not only to save costs but also to take advantage of economies of scale benefits, provide cost avoidance, access partner capabilities and expertise, enhance the quality of services, and improve installation-community cooperation on issues of mutual concern.

In addition, Sec. 331 in the 2013 National Defense Authorization Act (NDAA) provided additional statutory authority for military installations to enter into agreements with local and state governments for "installation support services."² This authority was refined two years later in Sec. 351 of the 2015 NDAA, which maintained the primary provisions of the original law but provided clarification on contractual aspects to further facilitate intergovernmental cooperation. Specifically, the authority for intergovernmental cooperation was transferred to the Real Property section of the U.S. Code, and, as a result, any contracts established are not required to follow the Federal Acquisition Regulation (FAR). In addition, the Service Secretary may enter into an intergovernmental support agreement (IGSA) on a sole-source basis with a

¹ Although the focus of this report is on PuPs, we also briefly discuss other types of partnership relationships, such as public-private partnerships, because installations are also involved in such partnerships and many of these other types of partnerships are similar to PuPs.

² Public Law 112-239, National Defense Authorization Act for Fiscal Year 2013, Subtitle D, Readiness, Sec. 331, Intergovernmental Support Agreements with State and Local Governments, January 2, 2013.

state or local government to provide, receive, or share installation support services if the Secretary determines the agreement will serve the best interests of the department by enhancing mission effectiveness or creating efficiencies or economies of scale.³ However, there are barriers that can limit the abilities of installations and communities to take advantage of installation PuP opportunities and the Sec. 331, now 351, authority. Given these barriers and opportunities, the purpose of this study was to clarify the potential value of PuPs to Department of Defense (DoD) installations, provide an overview of existing installation PuPs, identify barriers to their cost-effective application in DoD, and recommend ways to overcome these barriers. This study was cosponsored by the Office of the Secretary of Defense (OSD), the U.S. Navy, the U.S. Air Force (USAF), and the U.S. Army. The Army Office of the Assistant Chief of Staff for Installation Management (OACSIM) was the executive agent for the study.

Findings

Thousands of Existing Installation PuPs Occur in Some Mission and Most Nonmission Functional Areas

By examining hundreds of different military installation partnership activities found in the media and literature, conducting interviews of installation and community partners, and perusing partnership agreement documents, we identified specific examples of hundreds of diverse existing installation partnerships. Across DoD, we estimate that installations are already involved in thousands of innovative and diverse installation PuPs that were developed based on the unique circumstance, needs, and capabilities of the local installation and nearby communities. We found that installation PuPs occur in almost every major nonmission installation functional and service area and even in some mission areas. PuPs occur in a range of installation infrastructure and management areas, including water, energy, environment, transportation, operations and maintenance, safety and security, and emergency services. Partnerships involving services and support for military personnel, their families, retirees, and DoD civilians include the areas of recreation, children services, adult education, libraries, social services, and medical and health issues. Mission partnerships help with testing, training, and research and development (R&D), among other areas.

Diverse Authorities and Approaches Used for Installation-Community Partnerships

Not only does DoD engage in partnerships for a wide range of purposes, installations and communities have taken many different approaches and have applied various legal authorities to develop and implement installation-community partnerships. The legal authorities that

³ Sec. 351 of the 2015 NDAA maintains the primary provisions of the original law (e.g., the provider must already provide service, terms are limited to five years, local wage rates apply) but provides clarification on contractual aspects. Specifically, the Service Secretary may enter into an IGSA on a sole-source basis with a state or local government to provide, receive, or share installation support services if the Secretary determines the agreement will serve the best interests of the department by enhancing mission effectiveness or creating efficiencies or economies of scale. NDAA 2015 Sec. 351 transfers the original law, 10 U.S.C. Sec. 2336, from the Procurement section to 10 U.S.C. Sec. 2679, the Real Property, Personal Property, and Leasing of Non-Excess Property section. (Public Law 113-291, National Defense Authorization Act for Fiscal Year 2015, Subtitle D, Reports, Sec. 351, Clarification of Authority Relating to Provision of Installation-Support Services Through Intergovernmental Support Agreements, 2014; U.S. Code, Title 10, Armed Forces, Subtitle A, General Military Law, Part IV, Service, Supply, and Procurement, Chapter 159, Real Property; Related Personal Property, and Lease of Non-Excess Property, Sec. 2679, Installation-Support Services: Intergovernmental Support Agreements)

are used range from more-general IGSA authorities, such as Sec. 331 (superseded by NDAA 2015 Sec. 351), to those applicable to specific functional areas, such as 10 U.S.C. Sec. 2684 (“Cooperative Agreements for Management of Cultural Resources”),⁴ which allows installations to partner for cultural resource management.⁵ Additionally, some partnerships are developed through official OSD and Service⁶ programs, such as an Educational Partnership Agreement (EPA) or a Readiness and Environmental Protection Integration (REPI) partnership project, while others are at a local level and may be more-informal agreements that develop out of an ongoing trusting relationship with the community. Often, the nature of the need and functional or service area determines which types of approach might be best. For example, if installation staff need help with investing in large-scale, capital-intensive, energy efficiency technologies, they would likely use a Utility Energy Service Contract (UESC) or Energy Savings Performance Contract (ESPC) partnership agreement with a formal contract. However, if installation staff are interested in cooperating on an educational program with a local high school, they may use a memorandum of agreement (MOA) or memorandum of understanding (MOU)—or take an even more informal approach, with only a verbal agreement and no written agreement. An informal approach to the partnership, especially when no payments are made between partners, does not have a formal written agreement. This is often the case for joint activities and events where the partners just agree to contribute their individual personnel and other resources to help at the event.

We also found that many diverse organizations are participating in partnerships with military installations. Installations partner with a variety of local, state, and federal agencies, and with nonprofits, for-profits, and even private individuals.

Wide Range of Benefits Experienced by Installations and Communities from Installation PuPs

Installations and community partners experience a diverse set of benefits from installation PuPs. For example, the Presidio of Monterey (POM) has partnered with the cities of Monterey and Seaside since 1998 for the two cities to provide municipal services, such as building and street maintenance, to the POM. This partnership saved the Army almost \$2.5 million during the first two years of operation,⁷ and it improved installation municipal operations, such as improved service response times and customer satisfaction. While many partnerships achieve efficiency and effectiveness benefits, the full range of possible benefits can be grouped into ten areas:

1. improved military mission
2. economic benefits, including cost savings, earnings, and cost avoidance
3. improved installation and community operations, facilities, infrastructure, workforce, and services

⁴ U.S. Code, Title 10, Armed Forces, Subtitle A, General Military Law, Part IV, Service, Supply, and Procurement, Chapter 159, Real Property; Related Personal Property, and Lease of Non-Excess Property, Sec. 2684a, Agreements to Limit Encroachments and Other Constraints on Military Training, Testing, and Operations.

⁵ 10 U.S.C. Sec. 2684a permits DoD to enter into cooperative agreements with a state or local government or other entity for the preservation, management, maintenance, and improvement of cultural resources located either on an installation or in an area that may affect installation operations.

⁶ Within this document, the word *Service*, with a capital S, refers to the U.S. Air Force, Army, Navy, and Marine Corps.

⁷ See the appendix of the main report for more details on the savings.

4. access to additional capacity in resources, skills, expertise, facilities, and infrastructure
5. improved strategic regional collaboration
6. improved government and community relationships
7. enhanced outreach to military personnel and their families and communities
8. energy and environmental benefits
9. facilitator and political help with federal, state, and local governments and other organizations
10. helping maintain community character and way of life.

Some of these benefits are unique to military installations, while others help the community. For example, improving the military mission is an installation benefit, while helping maintain the local way of life is a community benefit. Many benefits may be experienced by both the installation and the community, though not always in the same partnership. In addition, there may be multiple benefits for both partners, as well as broader public good benefits. For example, Eglin Air Force Base in Florida partnered with Okaloosa County in 2014 to provide the county with used concrete for use in constructing artificial coral reefs, which will help recover coral reefs and improve fishing habitat. The base saves the concrete disposal costs of \$40 per ton, while the community experiences cost savings in building the reefs and enjoys the environmental benefits. Once fully implemented, this project will likely help local tourism (i.e., recreational fishing and diving) and potentially help military training by reducing the number of boats that encroach in water training areas.

Given ongoing budget pressures, military leaders are interested in whether PuPs can help save scarce military funding at installations. Although we have discussed the many other benefits from installation PuPs besides saving money, our review found five main installation partnership categories that generate the most costs savings or avoidance:

1. The installation partner provides a service at a lower cost than the installation had been paying.
2. The installation stopped providing the service (which may include the installation closing a facility) and is relying on the partner to provide the service with little to no payment.
3. The installation leases or sells land or another high-value asset in exchange for monetary or in-kind payments.
4. The community funds an installation service or the construction of an installation facility.
5. The installation experiences cost avoidance because the partner provides additional capacity to the installation.

Many Diverse Opportunities for Future Installation Partnerships Exist

In examining hundreds of different installation partnerships that already exist and are in process, we found that this diverse installation experience offers a range of insights and opportunities for future installation PuPs, including information about barriers and how to address them. Many opportunities exist for future installation partnerships in diverse functional areas, as demonstrated by the numerous installation PuPs already in effect. However, an important lesson for future installation PuPs is that not all partnerships are comparable or equal, and the more ambitious a partnership effort is in terms of scale and complexity, the more resources and time will be required to develop and implement the partnership. In considering future installa-

tion partnerships, especially when the main consideration is budget concerns, it is also important to remember that partnership options are just one way to provide an installation service and that a range of other alternatives exists.

When developing partnership ideas or considering service requirements, an assessment should be made that identifies all the options for providing a service, not solely the partnership options, and then evaluate the advantages and disadvantages of each option beyond just financial costs. Another lesson is the fact that installation PuPs are not always going to work or be cost-effective. In some cases, communities do not have the capacity or cannot provide a service more efficiently. Lastly, installation PuPs can save costs at installations, but they are not going to solve all installations' budget problems. Actually, many existing PuPs have been more about the long-term mutually beneficial relationship and strategic issues than about simply saving money. Namely, in economic terms, many partnerships tend to be about maximizing overall value (which often includes saving some costs) rather than minimizing financial costs. Such partnerships are strategically important to the long-term function and mission of installations.

Barriers to Installation PuPs

Both installations and communities face a range of barriers in trying to develop and implement installation PuPs. It is important to note that most of these barriers can be addressed, but often require extra effort, time, and resources to overcome.

First, there are general challenges that are common to most partnership activities. The main ones for installation PuPs are:

- cultural differences between the military installations and communities
- resistance to change by individuals and groups
- partner(s) not able or willing to make the commitment required
- deciding how to manage and share risks
- place-specific partnership opportunities and obstacles based on unique local circumstances.

Second, communities also face their own set of challenges, such as:

- little community interest or political support for partnering
- staffing issues within the community
- communication roadblocks with military installations
- frustration with the slow military decisionmaking and approval processes relative to the community's processes
- constraints on community capacity and expertise.

Third, installations face a range of challenges in trying to develop and implement PuPs with communities, such as:

- installations not wanting to partner with the community
- installation staffing issues
- installation communication challenges
- security and access concerns on the installation
- assessing the partnership in relationship to other activities.

Fourth, there are challenges in creating, implementing, and maintaining the partnership agreement or contract. These challenges can include:

- determining which authority and what type of agreement to use for the partnership
- installation and community lawyers, contracting personnel, and other staff disagreeing on the specific terms of the partnership agreement or contract
- an installation's inability to appropriately monitor performance and provide contract oversight
- the agreement or contract not having sufficient flexibility to change over time given changes and challenges that arise.

Lastly, installations face some challenges in federal policies, regulations, and legislation when trying to develop and implement partnerships, including a few main ones:

- **The Federal Acquisition Regulation (FAR)** outlines the federal government requirements for procurement of goods and services. Depending on the authority used, military installations may have to follow FAR procedures in developing installation PuPs when the total purchases (i.e., acquisitions) by the federal government using appropriated funds are at or above \$150,000 in one year or \$30,000 per year over five years.⁸ Understanding and applying the FAR requires a high level of expertise. Many community partners do not have the knowledge or resources to develop a FAR-compliant agreement without assistance. Applying FAR to a partnership activity could present challenges because many FAR requirements may add time and cost to the contract.⁹
- **Office of Management and Budget (OMB) Circular A-76** provides the rules and procedures to follow when considering outsourcing functions that are performed by federal government personnel.¹⁰ It could apply to an installation partnership when the proposed PuP means the loss of federal government jobs. However, it is unclear how it affects authorized but unfilled billets. In addition, it could limit the ability to develop an installation PuP, given that there is a DoD moratorium on A-76 analyses. Lastly, the required analysis for OMB Circular A-76 takes time and resources, which could be a challenge for many communities.
- **OMB Circular A-11** provides the rules for determining the budgetary treatment of federal purchases and leases, such as capital leases and operating leases.¹¹ It could apply to an installation partnership that involves such purchases and leases. When A-11 applies, it adds uncertainty to the project, depending on the budget climate and the determination concerning whether the project must be budgeted as either an operating lease or a capital

⁸ This threshold appears in FAR 2.01 (2)(b), definition for Simplified Acquisitions (General Services Administration, 2016).

⁹ Initially, with Sec. 331, the “Defense Department interpreted the legislation to require the use of the FAR for all IGSAs involving the provision of goods and services to the government, though the agreement could be sole sourced. Because municipalities have no or limited experience with the FAR, they were cautious about entering into contracts without detailed understanding of each clause. This slowed progress on IGSAs. NDAA 15, Sec. 351, clarifies that IGSAs do not require the use of the FAR, and leaves the determination of the best legal instrument to document the partnership up to each Service Secretary.” (U.S. Army, “About IGSA Partnerships,” undated-a)

¹⁰ OMB, *Performance of Commercial Activities*, Circular No. A-76, 2003a.

¹¹ OMB, *Preparation, Submission, and Execution of the Budget*, Circular No. A-11, June 2015.

lease (which would require more budget authority to cover the net present value of rent paid for the term of the lease). In addition, the determination of fair market value can add challenges to a community partnering project. A-11 has also been a challenge for some installation PuPs because of differences in accounting practices among partners.

- **Small and disadvantaged businesses set-asides** are federal goals and requirements that federal contracts and subcontracts must include for such businesses. Small and disadvantaged businesses have an advantage in gaining installation work that meets the criteria for small-business set-asides unless they cannot provide these goods or services at fair market value or there is insufficient competition. However, contracting personnel have some flexibility in deciding when these small and disadvantaged businesses set-asides apply, so installations may still be able to partner with municipalities even when a qualified small business is available to provide the service.
- **AbilityOne**, formerly called the National Industries for the Blind/National Industries for the Severely Handicapped, (NIB/NISH), is a noncompetitive legislatively established federal program that supports employing blind and severely disabled individuals by giving priority to contracts with qualified nonprofits. Given that the law states these AbilityOne providers have priority for sole-source contracts for providing some goods and services on the DoD procurement list, and originally without further clarification on NDAA 2013 Sec. 331, it was originally difficult for community partners to compete directly with AbilityOne providers where there are existing contracts. However, NDAA 2015 has provided DoD with some latitude on such contracting issues.

Recommendations for Developing and Implementing Installation PuPs

We developed and assessed some recommendations for helping to create and implement more installation PuPs. They have been grouped into four categories: recommendations for installation-level actions for developing and implementing partnerships; education and technical assistance recommendations for the Services and OSD; addressing federal policy, legislation, and regulatory challenges; and strategic recommendations for DoD.

Recommendations for Installation-Level Actions for Developing and Implementing Partnerships

First, we developed some standard recommendations for installation and community partners in developing and implementing installation partnerships based on the partnership literature and experiences and our interviews. Specifically, installations and their community partners in the partnership effort should:

- Establish synergistic goals and objectives.
- Invest in the partnership with the intent to develop a long-term relationship.
- Have committed leaders and staff.
- Facilitate partnership champions who can communicate objectives, motivate change, and address barriers.
- Make sure there are routine and ongoing communications at multiple levels.
- Ensure that clear responsibilities are assigned to the different partners.

- Develop a well-written partnership agreement or contract that includes objectives and performance criteria, spells out risk-sharing and other responsibilities, and provides the consequences for not meeting the agreement terms.
- Ensure that all partnership participants know that part of this process is to develop a long-term mutually beneficial relationship.
- Involve all potentially relevant stakeholders in the process.
- Develop a joint process for handling the media regarding the partnership.
- Encourage on-site field trips to help develop the partnership relationship and project ideas.
- Once implemented, evaluate the partnership progress on an annual basis.

Education and Technical Assistance Recommendations for the Military Services and OSD

Many of the challenges in developing and implementing installation PuPs can be addressed by the Services and OSD educating installation personnel and community members on the partnership benefits and opportunities and by providing technical assistance on partnership implementation. These recommendations are in four main areas:

- Military senior leaders and installation management should communicate realistic time lines and goals to communities and installation personnel about installation partnerships.
- Each Service should develop and implement a process for collecting structured data from partnership experiences.
- OSD and the Services should provide communities and installation staff with a range of materials (including an installation PuP guide and in-depth case studies) to assist them in developing and implementing installation partnerships.
- Each Service should educate commanders and other installation managers and staff about collaborating with communities.

The USAF and Army have already started doing many of these things through the efforts of the AF Community Partnership Program Office within the Assistant Secretary of the Air Force, Installations, Environment, and Energy (SAF/IE); and the Privatization & Partnerships Division, Installation Services Directorate, OACSIM, respectively. They should continue to support partnership programs and teams, provide guidance, ensure support for overcoming roadblocks, and share lessons learned.

Addressing Federal Policy, Legislation, and Regulatory Challenges

We developed some recommendations for DoD in addressing the FAR and the other policy, legislation, and regulatory challenges:

- OSD and the Services should expand and continue to provide education, training, and technical assistance to installations and communities to streamline, simplify, and speed up the FAR process when it is utilized for partnerships.
- Similarly, as needed for the OMB Circulars, OSD and the Services should expand and continue to provide education, training, and technical assistance to streamline, simplify, and speed up these federal processes.

- OSD and the Services should continue to develop and refine departmental guidance as to small and disadvantaged businesses set-asides given the broader authorities provided to it in Sec. 351.

Strategic Recommendations for DoD

Lastly, we developed some strategic recommendations for DoD in developing and implementing installation PuPs:

- OSD and the Service headquarters and regions should help facilitate more regional collaboration across different military installations and governmental groups. Such regional collaboration processes are needed for issues that are most effectively addressed at the regional level, including transportation, water, energy, housing, growth, airspace, encroachment, emergency response, security, and environmental concerns.
- If the military objective is to reduce cost, when considering an installation PuP for a high-cost installation function or service, the military installation should assess a range of alternative options along with installation PuPs based on the local circumstances.
- OSD and the Services should consider providing up-front seed money for limited installation PuP projects where there is a high startup cost and significant long-term cost savings or other significant benefits.

In conclusion, thousands of installation PuPs are already being used by many different installations to benefit military installations and communities. Hundreds more are currently being developed. There are many opportunities for installations and communities to develop more installation PuPs. By addressing some of the main barriers to such partnerships, more installation-community partnerships will be developed and implemented that help save government money, increase installation and community operational efficiencies, improve the military mission, provide other public benefits, and help ensure the long-term sustainability of the installation.

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Introduction

U.S. military installations have a long history of collaborating with communities. Many were even founded to help support civilian populations. For instance, part of the reason that Fort Huachuca was originally established as a camp in 1877 was to protect “settlers and travel routes in southeastern Arizona.”¹ Installations have played an important role in protecting communities from attack and providing help during and after natural disasters. Many installations have tended to be in rural areas far from cities and towns. However, over the last 30 to 40 years, urban and suburban communities have grown up around most U.S. military installations. At many installations, relationships with the local communities have grown, evolved, and strengthened as the communities have expanded to be geographically closer to them. Installations have established many partnership agreements with local and state governments for mutual benefit, called installation public-to-public partnerships (PuPs). These PuPs are commonly used for installations and communities to acquire services and capabilities from one another, such as having mutual aid agreements to share firefighting and emergency medical services during fires and other emergency events. Such partnerships provide installations and their partners with a range of benefits, including cost savings, improving services, accessing specialized equipment and capabilities, and improving community-installation relations. In addition, more and more military personnel and their families tend to live off the installation in the communities, which means they may be using more community services—thus providing more opportunity for PuPs.

As military installations, like other parts of the Department of Defense (DoD), face significant budget declines, they need to be creative and efficient to continue to manage and operate installations, sustain the military missions, and provide installations services, especially to military personnel and their families. Installation PuPs are seen as one approach for dealing with declining military installation budgets. By leveraging community activities through partnerships, installations may be able to take advantage of community expertise, save money through economies of scale or by accessing more-efficient providers, enhance the quality of services, and improve community cooperation.² Similarly, communities have also experienced

¹ Fort Huachuca, “History of Huachuca,” undated.

² As used in this report, *efficiency* refers to the relationship between a specific organization’s inputs and outputs. A truly efficient organization generates the maximum achievable output for a given amount of inputs. Therefore, in our discussion, *efficiency improvements* are those that generate more output for the same amount of inputs, thus bringing a specific organization closer to the theoretical average total cost curve for that output. Efficiency improvements may come about from hiring personnel who are able to generate more output than previous personnel, changes to workflow that cause the output per unit input to rise, negotiating lower wage rates, or lower costs because government providers do not require profits. *Economies of scale* refers to cost-per-unit reductions that occur when the quantity of output increases, thus an organization moves along

budget declines because of the economic downturn in 2009 and see the same type of opportunities in partnering with military installations.

In addition, Sec. 331 in the 2013 National Defense Authorization Act (NDAA) passed by Congress in January 2013 provided new authority for installation partnerships with communities.³ The authority, as stated in 10 U.S.C. Sec. 2336, gives military installations and local and state governments new statutory authority to enter into agreements for “installation support services.” It allows for a variety of intergovernmental support agreements (IGSAs) between military installations and other governmental agencies. However, there are barriers that can limit the ability of installations and communities to take advantage of installation PuP opportunities, as well as the Sec. 331 authority.

In an effort to clarify the language in Sec. 331, Congress (in Sec. 351 of the 2015 NDAA) transferred the authority to enter into intergovernmental support agreements to Chapter 159 of Title 10 because it is focused on installations. This law does two things: It defines an intergovernmental support agreement as a legal instrument; and its transfer of the authority for such agreements to 10 U.S.C. Sec. 2679 puts these agreements within the real estate section of the law (as opposed to the procurement section). As a result, intergovernmental support agreements are not subject to the Federal Acquisition Regulation and can be awarded on a sole-source basis if in DoD’s interest. As with any new approach to providing services, challenges and barriers have arisen. For example, the new law is untested, and formalizing agreements and monitoring performance will require taking some management risk and up-front effort.

Given these changes, the associated uncertainties, and the opportunities, the purpose of this study was to clarify the potential value of public-to-public partnerships to DoD installations, provide an overview of existing installation PuPs, identify barriers to their cost-effective application in DoD, and recommend ways to overcome these barriers. This study was cosponsored by the Office of the Secretary of Defense (OSD), the U.S. Navy, the U.S. Air Force (USAF), and the U.S. Army. The Army Office of the Assistant Chief of Staff for Installation Management (OACSIM) was the executive agent for the study.

Methodology

This study spanned more than two years, mostly being conducted from fall 2012 through January 2015. RAND researchers conducted a literature and document review, attended key

its average total cost curve. Costs per unit output may go down for two reasons: Fixed costs are distributed over a larger number of outputs, and certain variable costs may decline due to operational efficiencies at larger quantities. For example, as the size of the output increases, the fixed costs of investing in and maintaining buildings or capital equipment required to generate output is now distributed over a larger number of units. The same will be true of overhead costs (for example, contracting, purchasing, computer services, and human resources departments). In terms of variable costs, when more units are generated, the specialization of labor may cause workers to be more effective at a given task, or a larger organization may be able to negotiate lower resource costs (both labor and materials). Thus, as the output quantity increases, these types of economies of scale will drive organizations further down the average total cost curve. And finally, *effectiveness* refers to the ability of the service in question to meet the needs of customers. For example, *improved effectiveness* might refer to refuse collection that is more reliable or expedient, fitness facilities that are geographically closer to patrons, or library services that are more useful or helpful to patrons. We are not referring to the relationship of inputs to outputs so much as the quality or utility of the output.

³ Public Law 112-239, National Defense Authorization Act for Fiscal Year 2013, Subtitle D, Readiness, Sec. 331, Intergovernmental Support Agreements with State and Local Governments, January 2, 2013.

conferences, held interviews, and assessed installation public-to-public partnership experience. The literature and document review included reviewing federal policy, legislation, and regulations; installation and community partnership documents; and International City/County Management Association (ICMA) documents and survey data. RAND analysts also reviewed relevant trade press, media, industry, and academic literature about partnerships, focusing on those involving military installations.

RAND researchers attended several relevant conferences and conducted in-person and phone interviews. The researchers attended the April 29–30, 2013, Municipal Partnership seminar and several Association of Defense Communities (ADC) conferences in June 2013, February 2014, and June 2014. In addition, RAND staff gave a PuP presentation on June 12, 2013, at the ADC 2013 National Summit, soliciting community and installation feedback on the study. Interviews ranging from 20 minutes to two hours were conducted with more than 60 OSD, Service, installation, and community staff who had been facilitating, developing, implementing and/or participating in installation PuPs.

The assessment of PuP experience included identifying hundreds of installation PuPs in a wide range of functional areas from the literature search, conferences, and interviews. As part of this analysis, RAND researchers also examined password-protected Army and USAF websites with detailed installation PuP information and examined more than 60 different installation memoranda of agreement (MOAs), memoranda of understanding (MOUs), and other agreement documents.

From the several hundred installation partnerships examples identified, the research team developed a representative PuP database of existing partnerships, which consists of more than 250 installation PuPs. For inclusion in the database, either a formal agreement must exist or work must already have been performed as part of the partnership arrangement. That is, an existing partnership is defined as one where the installation and community either has a formal signed agreement or contract for an activity, or the partners are already conducting an activity under a more informal arrangement. Partnership proposals for work are not included in the database. The PuP examples in this database were selected to represent the diversity of existing installation partnerships across all Services, functional areas, and types of partnerships (specific focus, breath, and depth).⁴ This database was analyzed to understand the range of partnership types, approaches, benefits, and other key aspects.

The RAND researchers also conducted in-depth installation case studies for more than a dozen installations across the different Services. For these case studies, at least one installation or community member who was directly involved in one or more partnership was interviewed about the development and implementation of the partnership(s), including benefits and barriers and how they were addressed. Interviews lasted from 30 minutes to two hours. Relevant partnership documents, such as agreements and contracts, were also examined.

⁴ This database was a subset of the population of existing installation partnerships. To create this database, a couple representative examples of common types of partnerships—such as emergency response, Readiness and Environmental Protection Integration (REPI), and Utility Energy Service Contract (UESC) partnerships—were added to the database. These were chosen for different Services to represent the diversity of the partnerships and focused on those that were longer running and more comprehensive or that had achieved significant benefits. If there were greater diversity in the partnerships in these more-common partnerships categories, more examples were added to represent the differences. In the less common partnership areas, any unique installation partnerships were automatically added to the database; if there were a few that were similar, only one installation example was added to the database.

How to Read This Report

This report can be read cover to cover or by individual sections of interest. It is intended to be a resource for those involved in installation partnerships. Such readers will be familiar with many aspects of installation partnerships and will not need to read sections about topics with which they are already familiar. Here, we describe the general content of each chapter so that readers can identify the ones that best serve their interests. In Chapter Two, we provide basic background on installation partnerships, including an explanation of the different types of partnerships, some insights from municipal partnerships, and factors needed for successful partnerships. Chapter Three presents an overview of the numerous types of installation partnerships that have already been implemented. They are organized by installation functional areas. This chapter presents many different partnership examples to illustrate the wide diversity of partnerships based on local installation and community circumstances. It also serves as a reference to help inspire additional installation and community partnerships. Different approaches and authorities that have been used in developing and implementing installation partnerships are discussed in Chapter Four, which also describes the different types of organizations that have partnered with military installations and the diverse installation PuP relationships based on the different partners' objectives. In Chapter Five, we explain the wide range of benefits from installation partnerships for both installations and their community partners. This chapter also provides a summary of the partnership types that have saved the military the most amount of money. Chapter Six discusses how all the existing installation partnership experience offers a range of opportunities for future installation PuPs. This chapter includes a discussion of the complexities in developing partnerships and comparing installation PuP opportunities with other alternatives. The main types of barriers encountered in trying to develop and implement installation PuPs are discussed in Chapter Seven. In Chapter Eight, we present some recommendations to address the barriers, along with some conclusions from this research. The appendix of this report presents an overview of the Presidio of Monterey partnership activities.

Background on Partnerships

In this chapter we provide some basic information about partnerships. We begin by explaining basic definitions about different types of installation partnerships. Then we provide some basic information about factors to consider when an installation is assessing what type of partnership to pursue in which functional areas. After that, we discuss lessons from municipal partnerships that can help inform military installation partnerships. Finally, we provide some information about factors that are needed to develop successful installation partnerships.

Defining Different Installation Partnership Types

The term *partnership* is widely used, but not well defined. People, including installation managers and staff, have different definitions, and installations are involved in many different types of partnerships, not just public-to-public partnerships (PuPs). Although the main focus of this report is on PuPs, we briefly discuss other types of installation partnership relationships for two main reasons. First, installation personnel usually care more about partnering for mutual benefit than they do about what type of organization they are partnering with. Second, sometimes other partnership types, such as an installation partnering with a nongovernmental organization (NGO) or private company, can function in a way similar to a public-to-public partnership. We briefly define and explain these different partnership types here.

Partnership

First, we need to define what this term means. According to the existing literature, a *partnership* is when two or more organizations agree to work together for mutual benefits and invest in the partnership relationship by sharing responsibilities, information, resources, risks, and rewards.¹ Resources can include human, financial, capital and equipment, and technical. The partners are working to attain compatible goals that could not easily be attained independently, and in doing so, share in decisionmaking and accountability for outcomes. Because of this level of integration and cooperation, the partner organizations often develop a long-term relationship

¹ The primary sources for the definition and subsequent discussion are: Frank Camm, “Using Public-Private Partnerships Successfully in the Federal Setting,” in Robert E. Klitgaard and Paul C. Light, eds., *High-Performance Government: Structure, Leadership, Incentives*, Santa Monica, Calif.: RAND Corporation, MG-256-PRGS, 2005; Hans Uslar, assistant director, Plans and Public Works, City of Monterey, “Public-Public Partnerships—A Bootcamp for Communities,” Association of Defense Communities Winter Forum, Miami, Fla., 2012; Jakki Mohr and Robert Spekman, “Characteristics of Partnership Success: Partnership Attributes, Communication Behavior, and Conflict Resolution Techniques,” *Strategic Management Journal*, Vol. 15, 1994, pp. 135–152; and Ben Gomes-Casseres, “A Partnership Is Not a Purchase Order,” *Harvard Business Review*, May 16, 2011.

built on personal relationships. A partnership is not a mechanism for obtaining free resources or transferring risk from one partner to the other, but it can provide access to new technologies, the ability to provide a wider range of products or services at lower cost because of efficiency or economies of scale improvements, access to knowledge and complementary skills outside the organization, and sharing of risks. Often the partnership yields benefits that extend beyond financial gains. Potential drawbacks include complexity, loss of autonomy, and information asymmetry.

Some organizational relationships that are called partnerships are really more collaborations, meaning the organizations are working together but the relationships do not involve the same level of commitment, organizational integration, interdependence, and sharing of risks, responsibilities, and resources as in partnerships. A true partnership, according to the literature, involves a high level of commitment, a closer working relationship (than in a standard contract relationship), and a high level of mutual interdependence. Partners also develop a high level of trust and communication.

Partnerships can be viewed on a continuum from a loose partnership—which is more like a collaboration—to a more in-depth partnership, involving a high level of mutual interdependence and more shared resources and risks. The in-depth partnership usually has a formal agreement signed by all the partners that clearly spells out each partner's responsibilities and how risks are shared. A less formal partnership often does not have a signed, detailed agreement and may be implemented based on a “handshake deal” or verbal understanding between the partners. As the partners develop working-level relationships and a better understanding of each other's business models, additional opportunities for mutual benefit are often identified. In fact, as the partners see value and develop mutual trust and working relationships, it leads to additional partnership activities and other partnerships, often including more informal “handshake” deals. This document discusses the full range of partnerships, because we found all types are providing benefits to installations and their community partners. However, the main focus is on the more in-depth partnerships, because these examples offer more insights into the opportunities and challenges.

Installation Public-to-Public Partnerships

An installation PuP is a partnership agreement between an installation and one or more local, state, or other federal agencies, usually over the long term. PuPs allow public organizations to pool resources, and therefore they improve buying power and expand technical expertise or facilities' capacity. The benefits of a PuP are economy-of-scale cost savings, public sector efficiencies (no profit margins)², improved effectiveness, and lower costs. The two government agencies often bring different expertise or capabilities to the partnership, such as financial, technical, or facilities, which they share.³ A PuP example for sharing facilities is the Naval Support Activity Annapolis. Naval Support Activity Annapolis Morale, Welfare and Recreation (MWR) partnered with the City of Annapolis Recreation and Parks Department for the mutual use of ball fields. In this example, the Navy installation and the community share use and maintenance responsibilities of their ball fields without any funds being transferred.

² Since public-sector organizations do not earn profit on services provided, these organizations potentially can produce the same output for lower cost than private-sector organizations and would therefore be more efficient. This is distinct from economy-of-scale savings that accrue over a larger quantity of output because certain fixed costs are distributed and certain variable costs can be more efficient.

³ A more in-depth discussion of PuPs' benefits is provided in Chapter Five.

PuPs can also be complex deals that involve millions of dollars, such as helping with facility infrastructure investments. A traditional example of this type of partnership is a Utility Energy Service Contract (UESC), which is a partnership between a military installation and a public utility company that enables the implementation of energy and water efficiency projects. The utility pays for the energy and water efficiency investments, and the installation pays the utility back from its energy and water savings over time. For example, Fort Campbell, which straddles the Kentucky-Tennessee border, has UESC partnerships with Pennyrile Rural Electric Cooperative Corporation (RECC) and the Tennessee Valley Authority (TVA) and has installed energy-efficient boilers; heating, ventilation, and air conditioning (HVAC) systems; water heaters; lighting; ground source heat pumps (GSHPs); and an Energy Management Control System through UESC projects with these two partners.⁴

Some of the installation PuPs, including UESCs, may seem like traditional outsourcing, where the installation provides a payment to the partner for a service. However, these types of PuPs often function as partnerships because of the nature of the relationship that develops—one where the partner develops an understanding of the installation's operational needs and objectives and has the institutional caring and commitment to suggest improvements beyond those that fulfill the scope of the initial work statement. That is, the partner cares about and considers the installation needs and objectives, not just the payment it receives.

For example, consider one of the oldest and most comprehensive installation PuPs: the one between the Presidio of Monterey (POM) and the City of Monterey. This partnership had its first formal arrangement when the city leased several land parcels from the POM for a historic park and nature preserve, and later leased ball fields and a child care center. These facilities were upgraded, operated, and maintained by the city and were available to both Army personnel and city residents.⁵ In 1998, the Presidio of Monterey and the cities of Monterey and Seaside signed a cost-reimbursable contract for the two cities to provide municipal services, such as building and street maintenance, to the POM. Even though this seems like just a contracting relationship, it is not. The partners have built a sense of common purpose, and the City of Monterey has been responsive and adapted to the changing needs of the Presidio of Monterey over time. For example, the contract allows the POM to access additional municipal services if needed on a cost-reimbursement basis, and the city staff worked closely with installation staff in 2013 to implement sequestration cuts that minimized the impact on installation operations. In addition, this example also illustrates how installation partner relationships, when they are mutually beneficial and work well, often grow and expand over time. The partnership relationship began in the mid-1990s during base realignment; became more formalized with the leases for parkland, ball fields, and child development centers; and has continued to develop since 1998 throughout the three subsequent municipal services contracts. Actually, many successful in-depth PuP partnerships often lead to partnering in additional areas because of the information exchanged, knowledge gained, and trust created between the partners.

⁴ For more information, see Beth E. Lachman, Kimberly Curry Hall, et al., *Making the Connection: Beneficial Collaboration Between Army Installations and Energy Utility Companies*, Santa Monica, Calif.: RAND Corporation, MG-1126-A, 2011, Appendix A.

⁵ For more information about the Presidio of Monterey partnership, see the appendix of this report.

Installation Public-Private Partnerships

An installation public-private partnership (PPP) is a collaborative arrangement between an installation and a private entity, which could be a for-profit company or an NGO. Since installation public-private partnerships are similar to installation PuPs, we briefly discuss them here to explain how the two compare. First, “PPPs specify joint risks and responsibilities, which implies some sharing of risks, costs, and assets.”⁶ A typical installation public-private partnership involves the private company providing a service to the installation over the long term in return for ongoing payments. An Energy Savings Performance Contract (ESPC) is an example of this type of partnership, as is a UESC that involves a for-profit company. An ESPC is a partnership between a military installation (or other federal facility) and a private-sector company, called an Energy Service Company (ESCO). The private company pays for the energy and water efficiency investments, and the installation reimburses it from the energy and water savings that accrue over time. For example, Dyess Air Force Base (AFB) in Texas used an ESPC to partner with an ESCO to develop its use of reclaimed water. Because of an ongoing drought and concerns about the sufficiency of the potable water supply for the nearby town of Abilene, Dyess AFB began using Abilene’s effluent water for irrigation. An ESPC was used to add two 11-million-gallon holding reservoirs, two pump stations, and three miles of distribution piping to connect the effluent irrigation system. This ESPC reduces annual potable water consumption by 160 million gallons and saves \$300,000 a year. It also saves the City of Abilene 2 percent of its potable water supply.⁷ This example also illustrates how the community was another partnership beneficiary and had a role in this ESPC partnership.

Often an installation public-private partnership can seem like traditional outsourcing, where the installation is contracting out to the partner for a service, but because of the working relationship that develops, the arrangement may function like a partnership. The distinction is that the interaction between the two extends beyond one fulfilling the contract specifications of the other, and involves mutual problem-solving and decisionmaking. However, some installation public-private partnerships are not as collaborative in nature and do end up functioning more as a contracting arrangement than a partnership. As discussed earlier, there is a continuum of partnership relationships from a loose partnership to a more in-depth partnership.

Regional Partnerships with Three or More Partners

A regional partnership is a partnership where an installation has an agreement with multiple entities, which may be public and private, often within a large geographic area for mutual benefit. Usually these partnerships focus on a regional concern that cannot be sufficiently addressed unilaterally, such as emergency response, community growth and development, transportation, law enforcement, watershed management, or ecosystem management. Military installations have entered into regional partnerships to address encroachment concerns through compatible land use partnerships, and to address environmental concerns through regional ecosystem partnerships.⁸ An example of a regional ecosystem management partnership that

⁶ Ike Chang et al., *Use of Public-Private Partnerships to Meet Future Army Needs*, Santa Monica, Calif.: RAND Corporation, MR-997-A, 1999, p. 2.

⁷ U.S. Department of Energy, “ESPC Success Story: Dyess Air Force Base, Dyess Texas, Water Conservation and Green Energy,” July 2009.

⁸ “Encroachment can be defined as issues external to military operations that affect or can affect military installation testing, training, and other operations and overall military readiness.” (Beth E. Lachman, Anny Wong, and Susan A. Resentar, *The Thin*

involves military installations is the Gulf Coastal Plain Ecosystem Partnership (GCPEP), in which Florida's Eglin AFB has played an active role. The GCPEP is a regional partnership of diverse landowners working together to conserve and restore the longleaf pine ecosystem in Florida and Alabama (see Box 2.1).⁹ Many of these regional partnerships tend to be more like collaborations than in-depth partnerships, because the partners invest and commit less in the partnership relationship. A regional partnership also often takes more time to develop, especially when there are many diverse partners (that may have complementary but differing objectives) and the focus is on a large area.

An even more common type of regional partnership in which military installations participate is an emergency response partnership. These partnerships often involve military personnel working and training with state and local fire departments, emergency medical staff, and police departments to improve response during a regional emergency. In the Colorado Springs area, for instance, the U.S. Air Force Academy, Fort Carson, Peterson AFB, and other military installations in the region, partner with the U.S. Department of Agriculture Forest Service (FS), Colorado State FS, Colorado Springs Fire Department (FD), Cheyenne Mountain FD, Manitou Springs FD, and other local government fire departments to train, fight wildfires, and respond to other emergencies in the region.

Box 2.1. The Gulf Coastal Plain Ecosystem Partnership

The Gulf Coastal Plain Ecosystem Partnership (GCPEP) is a collaboration of diverse landowners that seeks to conserve and restore the longleaf pine (LLP) ecosystem in Florida and Alabama. Participants include federal, state, and nonprofit agencies, such as Eglin Air Force Base (AFB), Naval Air Station Whiting Field, Naval Air Station Pensacola, the National Park Service, the Florida Department of Environmental Protection, the Florida Forestry Service, the Florida Fish & Wildlife Conservation Commission, the Longleaf Alliance, the Northwest Florida Water Management District, National Forests in Alabama, The Nature Conservancy, Nokuse Plantation, and Westervelt Ecological Services.

In a memorandum of understanding (MOU) signed in 1996, partners agreed to manage their own lands to restore the LLP ecosystem. The partnership is guided by a steering committee made up of two representatives from each of the partner organizations and is managed using guidelines outlined in the MOU and facilitated by the Longleaf Alliance. Ecoregional and site conservation planning is used to establish goals for more than one million acres covered by the partnership. Restoration and land management has focused on the red cockaded woodpecker, flatwoods salamander, Florida black bear, LLP sandhill matrix, LLP flatwoods matrix, and stream/slope matrix ecosystem. Eglin AFB leads the Ecosystem Support Team that conducts ecological monitoring and provides technical assistance, particularly with prescribed burns.

There are many benefits to this collaboration that go beyond the objective of longleaf pine ecosystem restoration. By working together, the partners have leveraged funds from multiple sources, garnered political support, added to state parkland, contributed to the recovery goals of threatened and endangered species, and prevented environmental and urban encroachment at the military installations in the region far beyond what any single participant could accomplish alone.

SOURCES: Longleaf Alliance, "Gulf Coastal Plain Ecosystem Partnership (GCPEP)," undated; Luncsford, 2012.

Green Line: An Assessment of DoD's Readiness and Environmental Protection Initiative to Buffer Installation Encroachment, Santa Monica, Calif.: RAND Corporation, MG-612-OSD, 2007, p. 3.) For example, sprawl and other land development pressures near installations can cause encroachment on military installations, which can create a range of problems, including more threatened or endangered species, wetlands, water, and air quality problems; competition for airspace and radio frequency spectrum; and more noise, smoke, and other complaints from the community about military testing, training, and other installation operations. We further explain encroachment and partnerships to help prevent it in Chapter Three.

⁹ For more information, see Bernadette Luncsford, "Re-Establishing Buffer Areas Around Military Bases Offers Opportunity for Ecosystem Restoration," thesis, Blacksburg: Virginia Tech, 2012.

Functional or Activity-Based Partnerships with Three or More Partners

Installations are also involved in multiple-partner partnerships that focus on providing a particular function or service for the installation or for conducting some type of large-scale event together. This multipartner function or service partnership often focuses on building and/or operating a large-scale infrastructure project on the installation. Such projects have included recreation centers, water facilities, and large-scale renewable energy projects, such as waste-to-energy (WTE) plants or large-scale solar arrays. Often, these infrastructure partnerships involve community and industry partners. For instance, Fort Carson partnered with Xcel Energy, the Western Area Power Administration (WAPA), and several companies (including 3Phases Energy Services, LLC, and Sun Technics Energy Systems, Inc.) to build and operate a 12-acre two-megawatt solar array project (see Box 2.2). Usually, the private sector plays an important role in these partnerships because it has the expertise to build, operate, and maintain the energy technologies. Such PuP projects can also be located in the community for a joint-use facility between the military and the community, such as federal, state, and local government partnerships in Minnesota. The Minnesota Army National Guard (MNARNG) has partnered with state and local governments to combine their Readiness Centers with local community centers to create Training and Community Centers (TACCs). These multipurpose facilities are designed, financed, built, and shared by federal, state, and local governments.

A functional partnership with multiple partners often occurs in the environmental area when university researchers and other partners help to monitor, study, and/or try to restore habitat for species of concern. Such partnerships can even include community volunteers. For instance, Nellis AFB, the Red Rock Audubon Society, and U.S. Fish & Wildlife Service

Box 2.2. Fort Carson Large-Scale Solar Array

In fiscal year (FY) 2007, Fort Carson partnered with multiple public and private partners to help develop and implement a two-megawatt ground-mounted solar array project on 12 acres atop a former post landfill. The array became operational in early FY 2008. The photovoltaic array generates 3,200 megawatt-hours per year and provides Fort Carson with nearly 3 percent of the installation's electrical needs.

Partners that were key to this project's success include Xcel Energy; Western Area Power Administration (WAPA); 3Phases Energy Services, LLC; Sun Technics Energy Systems, Inc.; and Colorado Springs Utilities (CSU). Xcel Energy, a publicly owned utility, was instrumental in shaping the deal and making the project happen. Xcel Energy also bought Fort Carson's renewable energy credits (RECs) for 20 years under its Solar*Rewards program, which provides incentives for residential and commercial solar installations. The facts that Colorado has Renewable Portfolio Standards (RPSs) for 20 percent renewables by 2020 and that publicly owned utilities in Colorado, like Xcel Energy, have to reach a 4-percent solar energy requirement by 2020, motivated Xcel Energy to participate in this deal. WAPA was also a key partner in this deal because Fort Carson used a Power Purchase Agreement (PPA) for a 20-year term through WAPA as the contracting vehicle. 3Phases Energy Services served as the broker on the project, got Morgan Stanley on board to finance it, and pulled all of the pieces together. 3Phases Energy Services and Sun Technics Energy Systems developed, engineered, and installed the solar photovoltaic array on leased Fort Carson land. CSU, a not-for-profit public utility, which provides electrical services to Fort Carson, was another key partner. Transmission of the energy that is generated by the array relies on CSU and being part of the local utility grid; i.e., CSU hosts the photovoltaic array on their grid. CSU also is helping to provide operations and maintenance (O&M) for the array.

Fort Carson is purchasing the energy from Carson Solar I, LLC, at a fixed rate of 5.5 cents per kilowatt-hour for the duration of the contract and will save an estimated \$500,000 in utility costs from projected utility rate increases.

SOURCE: Lachman et al., 2011, Appendix B.

(USFWS) partnered to have citizen scientists from the Red Rock Audubon Society monitor and survey for burrowing owls on Nellis AFB as part of a USFWS Urban Burrowing Owl Monitoring Project in the Las Vegas Valley.¹⁰

In addition, a functional partnership with multiple installation partners has been created to coordinate and advance archeological research across North America. This partnership of military installation and university archeologists has been studying paleomarine culture across North America. The partners include Marine Corps Air Ground Combat Center, Twentynine Palms (California); Fort Drum (New York); San Clemente Island Naval Auxiliary Landing Field (California); the Center for Environmental Management of Military Lands at Colorado State University; Dugway Proving Ground (Utah); Utah Test and Training Range, Hill AFB; and Yakima Training Center (Washington). Benefits of the research include improved archeological site management at installations that “should result in increased sustainability with a decrease in training restrictions due to archeological site protection requirements.”¹¹

Another common category of partnership with multiple partners focuses on developing excess property on the installation in collaboration with the community. At Grand Forks AFB in North Dakota, for example, the base, Grand Forks County, State of North Dakota, and private companies have partnered in developing a special industrial park on the base. The county is leasing 217 acres on the western edge of the base to build an unmanned aerial system (UAS) campus for UAS developers to design, test, and operate UASs in collaboration with industry. The state and county have invested funds in the project for utility infrastructure, road, and other improvements.

Large-scale event multipartner partnerships can be community events in the area or a special event on the installation. These partnerships include Earth Day, Memorial Day, energy awareness, school, crime prevention, conferences, and community events. For instance, Ellsworth AFB, the Rapid City Chamber of Commerce, the South Dakota Center for Enterprise Opportunity, the South Dakota Army National Guard, and the Army Reserve Officers’ Training Corps (ROTC) partnered to hold a one-day community event for Women’s History Month celebrating women of character, courage, and commitment. A very different type of community event partnership at Fort Bragg, North Carolina, focused on getting drunken drivers off the road. Fort Bragg Provost Marshal’s Office partnered with civilian law enforcement agencies at checkpoints for driving while intoxicated on January 13–14, 2012, along NC Highway 87. The Fort Bragg staff came from Traffic Accident Investigation, Criminal Investigation Command, K9, Drug Suppression Team, and Military Police Investigation. Community partners included Harnett and Cumberland County Sheriff Offices, magistrates from those counties, Cumberland County Probation and Parole, Spring Lake Police Department, N.C. State Highway Patrol, and Mothers Against Drunk Driving (MADD). A total of 79 officers were involved. This partnership also illustrates the wide range of partner organizations that collaborate in some of these event partnerships.

Multipartner partnerships also include allowing special access on the installation, such as educating the community about installation activities or allowing access to Native American tribes for cultural rituals and traditions. For instance, the State of Connecticut Office of

¹⁰ For more information, see Maggie Lillis, “Residents, Scientists Devoted to Ensuring Creatures Are Safe from Development,” *Las Vegas Review-Journal*, January 17, 2012.

¹¹ DoD Legacy Program, “Model Evaluation of Paleo Indian Archeological Sites on DoD Installations with Pleistocene Shorelines,” fact sheet, U.S. Department of Defense, Project 05-260, June 5, 2007.

Military Affairs (OMA), Eastern Connecticut Chamber of Commerce, the Navy, Naval Submarine Base New London, the U.S. Coast Guard (USCG), and the National Guard partnered in a Military Orientation Day. The event was designed to expose future community leaders to all of the military branches in eastern Connecticut. The day included orientations at the Naval Submarine Base New London, a tour of a submarine, a tour of the USCG Academy, and visits to different National Guard facilities.¹²

Privatization of Installation Services and Infrastructure

Privatization is when the Department of Defense (DoD) sells an infrastructure asset to a private or public entity, which then maintains and operates it for the installation. Because some installation privatization arrangements can function similarly to installation PuPs and some of them involve public organizations, we briefly discuss them here to explain how they compare with installation PuPs.

Since the 1990s, the Services have had installations privatizing energy and water utility systems and military housing. The Army also started privatizing its installation lodging, called Privatized Army Lodging.¹³ These arrangements can be like a partnership because the private entity provides an ongoing service to the installation, and can develop a close, working, mutually beneficial relationship as a result. We briefly explain utility and military housing privatization.

Installation Utilities Privatization

By the 1990s, many military installations had realized that the traditional sources for funding water investments, especially those required to maintain large capital investments, were not enough. Sustainment, restoration, and modernization (SRM) funds (more commonly known as operations and maintenance [O&M] funds), and Military Construction (MILCON) funds, were not sufficient to maintain energy, water, or wastewater systems over the long term. For example, there was “systematic underfunding of Army-owned water and wastewater systems.”¹⁴ Many installation energy, water, and wastewater systems were badly degraded because the Services were not investing enough in maintenance and the necessary upgrades. As a result, infrastructure maintenance was deferred for years. At this time, many in the Office of the Secretary of Defense (OSD) and the Services also felt that the Services’ installations should focus on core defense missions and not be distracted by the utility infrastructure management business. These personnel believed that installation energy, water, and wastewater systems would be better off being owned, managed, and maintained by private or public organizations that are utility management experts.

For these reasons DoD decided in 1997 that privatization was the preferred method for improving utility systems, and Congress approved legislative authority for privatizing DoD’s

¹² State of Connecticut, “State of Connecticut Office of Military Affairs (OMA) Annual Report 2011–2012,” 2012.

¹³ The Army privatized installation lodging for a variety of reasons. First, more than 80 percent of U.S. Army installation hotel rooms were in need of replacement or major renovation. “The cost for this revitalization was close to \$1B and the Army estimated that it would take in excess of 20 years to bring the inventory up to an adequate standard through conventional appropriation channels.” In addition, the Army did not have sufficient funds to invest in lodging facilities over time. Lastly, Army leadership also felt “that owning, operating and maintaining lodging facilities was not a core function of the Army.” (U.S. Army, “PAL Privatized Army Lodging,” undated-d)

¹⁴ Army Environmental Policy Institute, “Army Water Security Strategy,” December 2011.

utility systems with Public Law No. 105-85.¹⁵ DoD issued Defense Reform Initiative Directive (DRID) No. 9, in December of that year,¹⁶ which started DoD's installation utility privatization initiative. It directed the military departments to develop plans for privatizing all of their utility systems (electric, water, wastewater, and natural gas) except those needed for security reasons or when privatization was uneconomical. In 1998, DoD issued DRID No. 49 to provide more specific guidance on utility privatization.¹⁷ Over the years, DoD has updated such guidance.

Utility privatization (UP) means the military actually sells the government-owned on-installation utility distribution systems to a private or public entity (such as a municipal utility) that will then operate the systems and provide utility services to the installation's buildings and activities.¹⁸ Utilities privatization is a method by which military installations can (ideally) obtain safe, technologically current, and environmentally sound utility systems at a relatively lower cost than they would under continued government ownership.

Many of the more successful utility privatization deals can also be considered a public-private partnership or a public-to-public partnership because of the long-term collaborative relationship that develops. That is, the partners work together, pool resources, act as a team, and conduct joint decisionmaking when challenges and changes arise. Some Army installations work with the privatized utility as a partner, such as at Fort Gordon in Georgia, which formed both a PuP and a public-private partnership. In 2008, the City of Augusta and Fort Gordon signed a \$290 million deal for the city to provide water to the post at wholesale cost, and the deal was soon expanded to include sewage treatment. Fort Gordon and the City of Augusta view this relationship as a public-to-public partnership. In 2006, Fort Gordon also outsourced its electrical system to Georgia Power, a private company, to provide funding to upgrade the system and improve service. Prior to this deal, electrical outages were a regular occurrence at Fort Gordon, especially during the summer, when heavy demands were placed on the system. This public-private partnership improved the reliability of the power source, brought new lighting to dark areas on the post, and benefited the environment because of more environmentally conscious construction.¹⁹

Military Housing Privatization

Many installations also had problems resulting from years of deferred infrastructure maintenance in military housing. Many installations were not investing enough in military housing maintenance, so DoD-owned housing was in the process of degrading and in "poor condition."²⁰ At some installations, moreover, there was a shortage of quality affordable private housing. In response to these circumstances, Congress established the Military Housing Privatization Initiative to help improve the condition of military housing in 1996. The initiative was designed

¹⁵ Public Law 105-85, National Defense Authorization Act for Fiscal Year 1998, 1997.

¹⁶ U.S. Department of Defense, "Privatizing Utility Systems," Defense Reform Initiative Directive No. 9, 2007.

¹⁷ U.S. Department of Defense, "Privatizing Utility Systems," Defense Reform Initiative Directive No. 49, 2008.

¹⁸ For a good overview of what utility privatization means, including some the challenges to successful utility privatization, see Jeffrey A. Renshaw, "Utility Privatization in the Military Services: Issues, Problems, and Potential Solutions," *Air Force Law Review*, January 1, 2002.

¹⁹ Kyle Martin, "Public Partnerships Benefit Fort Gordon, Other Military Installations," *Augusta Chronicle*, August 25, 2012.

²⁰ Office of Deputy Under Secretary of Defense, Installations and Environment, "Military Housing Privatization," undated.

to address these problems by attracting “private sector financing, expertise and innovation to provide necessary housing faster and more efficiently than traditional Military Construction processes would allow.”²¹ A variety of financial tools (including direct loans, loan guarantees, equity investments, conveyance or leasing of land and/or housing and other facilities) are used in privatized housing deals. OSD delegated the initiative to the each of the Services, which are authorized to enter into agreements with private developers selected via a competitive process to own, maintain, and operate family housing with a 50-year lease. For example, Edwards AFB in California has partnered with a private contractor, Picerne Military Housing, to provide base housing. Military Service members receive a basic allowance for housing that they can use to help pay for private-sector housing or privatized housing, depending on where they choose to live.²² Initially, privatized partners were expected to charge rents within this housing allowance, but recent policy changes has relaxed this requirement, as funding for the basic allowance for housing has decreased. Again, such privatization relationships can, at times, function as a partnership because of the working relationships and joint decisionmaking that develop over time and the ability of the partners to adapt to changing conditions.

Factors in Choosing Which Installation Partnership Types to Pursue for What Functions/Services

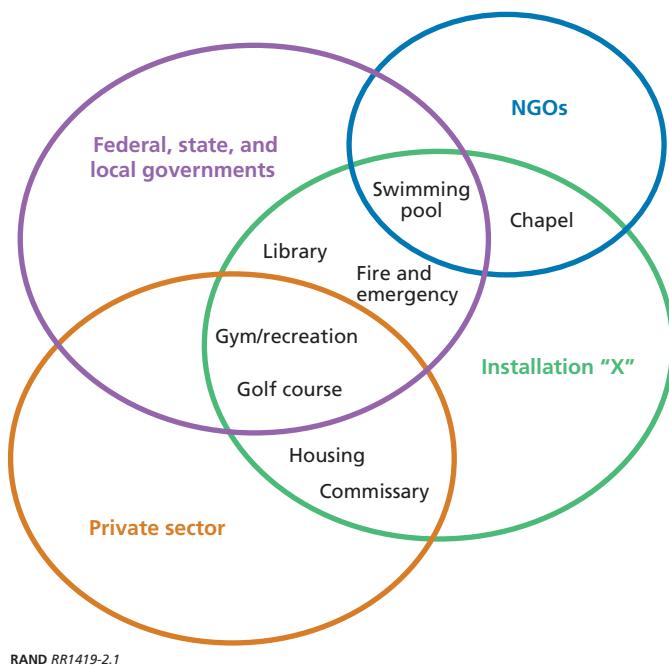
It is important to recognize that installations are often involved in different partnership types and that local circumstances help determine which partnerships, if any, are best for the various functions and services provided at an installation. An installation can have a range of options of potential partners to help with a particular need based on the local strengths, capacities, and physical locations of different organizations within the area. For example, some Navy bases had to close their swimming pools during the summer of 2013 because of sequestration budget constraints. Some Navy bases in the Southwest closed their pools and partnered with local public community pools to provide swimming pool facilities to Navy Servicemen and their families. Depending on the area, many different nearby state and local governments—and even NGOs, like the YMCA or a private club—could be possible partners for sharing or providing pool facilities.

Local governments have strengths in areas such as libraries and recreation, emergency, and social services, while the private sector has strengths in retail and other commercial services, such as retail shops, housing, and some recreation facilities. Figure 2.1 illustrates how such strengths could be represented by a Venn diagram between an installation, named X, and different types of organizations and thereby showing areas of overlap where an installation may want to explore partnership help for a particular activity. It is important to note that communities and other potential partners could use this type of diagram to help them see where an installation’s strengths might be and for what sort of activities an installation might be able to help with. For instance, some communities use installation swimming pools, as at Naval Support Activity Annapolis, where various local community swim clubs and leagues, including the Naval Academy Athletic Association, use the installation swimming facilities.

²¹ Office of Deputy Under Secretary of Defense, Installations and Environment, undated.

²² Office of Deputy Under Secretary of Defense, Installations and Environment, undated.

Figure 2.1
Illustrative Diagram of How Different Installation Activities Could Be Aided or Performed by Diverse Organizations



An installation chooses to enter a partnership for a range of potential benefits, including to save money; access skills, expertise, facilities and infrastructure that it may lack; improve services and benefit the mission; and share risks. Besides costs and capacities, installation management also needs to consider a range of factors before partnering with another organization for help with a particular function or service, including quality, accessibility, mission value, and security issues.²³

For instance, consider the swimming pool partnership example. Suppose an installation is considering two potential alternatives to provide swimming facilities to its military personnel and their families: partnering with a nearby YMCA swimming pool or with a state park that has a pool and a lake but is a little farther away from the installation and affected military members and families. First, some key cross-cutting factors need to be considered: the number of individuals assigned to the installation; military personnel, family members, and retirees using the installation pool; and whether the alternatives have the capacity and are located so that they can meet the installation pool facility demand. Second, can the alternatives meet the demand at a reduced cost?

Assuming the alternatives can meet the basic demands for swimming pool services, then the other key trade-off factors need to be considered. Table 2.1 illustrates the types of trade-off factors that could be considered when comparing the two partnering alternatives with the option of providing a swimming pool on the installation.

This is a purely hypothetical example designed to illustrate the trade-offs to consider when comparing alternatives. To assess the costs for the status quo option, the costs of personnel and

²³ We should note that there can also be policy and legal factors to consider, which are discussed more in Chapters Seven and Eight.

Table 2.1
Illustrative Example of the Factors to Consider for an Installation Swimming Pool Partnership

Factors	Swimming Pool on the Installation	Alternative 1: Pool at YMCA Off the Installation	Alternative 2: Pool and Lake at State Park
Cost to DoD	<ul style="list-style-type: none"> • Personnel • O&M 	<ul style="list-style-type: none"> • DoD subsidizes cost of membership? 	<ul style="list-style-type: none"> • DoD provides some funding?
Quality	<ul style="list-style-type: none"> • Depends on age and funding 	<ul style="list-style-type: none"> • Size difference • Has longer hours 	<ul style="list-style-type: none"> • Not heated • Closed in winter
Accessibility	<ul style="list-style-type: none"> • More convenient for families living on post 	<ul style="list-style-type: none"> • More convenient for families living off post 	<ul style="list-style-type: none"> • All families need transportation to get there
Security	<ul style="list-style-type: none"> • Only used by military population 	<ul style="list-style-type: none"> • Slight increase in risk to military personnel 	<ul style="list-style-type: none"> • Slight increase in risk to military personnel
Installation Sustainability	<ul style="list-style-type: none"> • Fosters sense of military community • Energy and water use 	<ul style="list-style-type: none"> • Decreased sense of military community 	<ul style="list-style-type: none"> • Decreased sense of military community
Interrelationship with other services	<ul style="list-style-type: none"> • Provides summer jobs for family members • Physical training (PT) opportunity 	<ul style="list-style-type: none"> • YMCA also provides gym and on-site child care 	<ul style="list-style-type: none"> • Could also have camp-ground deal

O&M at the installation pool facility would be calculated. For alternative 1, perhaps the installation provides a subsidy for military personnel and their families to use the YMCA pool through a partnership. For alternative 2, the installation considers providing a small amount of funding to the state park for use of its swimming facilities and/or provides a state park parking fee subsidy for military personnel and their families through a partnership. Next, the installation compares the quality of the installation pool to the two alternatives. Quality can include a variety of factors, including appearance, size (of the pool, locker rooms, etc.), operating hours, and facility amenities (vending machines, snack bar, towel service, number of poolside tables and chairs, etc.). In our illustrative example, the installation pool is older, has few amenities, and is not as well funded as the off-installation YMCA facility. The YMCA is open more hours, has vending machines and a larger pool, and provides newer, more modern, and larger locker rooms. The pool and lake at the state park is the largest facility and has a snack bar, but the pool is not heated and is closed in the winter. Similarly, the other trade-off factors need to be assessed for this analysis, as illustrated in the table. The table for this hypothetical example also illustrates that one option is not always going to be the clear best choice; there are pros and cons to different choices based on the local circumstances, and choosing an option depends on the priorities of installation management and how they choose to weight the different factors. In comparing such alternatives and in developing the corresponding partnerships, cost often is a main driver but may be outweighed by other factors, such as quality, accessibility, risk-sharing, or security concerns.

Lessons from Municipal PuPs

Intergovernmental agreements among local governments for services (i.e., municipal PuPs) can offer insights for DoD installations. These partnerships are largely created to save money, often by taking advantage of economies of scale, but are also created to access capacities or technical capabilities that a community lacks.

The International City/County Management Association (ICMA) has been surveying and studying municipal PuPs since the 1980s. By reviewing the decisionmaking of municipalities as evidenced in these ICMA surveys and assessments, inferences can be made to inform installation decisionmaking regarding installation PuPs. What services do local governments choose to acquire from other local governments that are relevant to the services that DoD installations provide?

Cities typically produce the services that they provide to residents in-house, using their own government employees. Specifically, surveys from 2002 to 2007 found that cities produced 47 to 52 percent of the services they provided to their residents entirely in-house.²⁴ Over the same period, cities relied on for-profit firms to produce 18 percent of the services they provided and on other governments—mainly other local governments—to produce 17 to 20 percent of the services they provided. Nonprofit organizations produced about 8 percent. Over this period, cities experienced some pushback on efforts to outsource service production to for-profit firms; many insourced specific services. Intergovernmental agreements, on the other hand, continued to grow somewhat. Similarly, in 2007, the ICMA surveyed local governments about the types of organizations that provide various services for their municipality, asking whether a service was provided through in-house capability, another government agency, a private for-profit firm, or a private nonprofit organization. ICMA had survey responses from 164 municipalities.²⁵ Table 2.2 shows the results of this survey for 24 different services that are most relevant for military installations.

For the relevant municipal services, this table shows what percentage of the responding municipalities used in-house sources exclusively, some in-house sources, another government agency, for-profit sources, not-for profit sources, or volunteers. This table displays the pattern of sourcing in 2007 for 24 of 67 municipal services recently studied.²⁶ The table shows all services for which the services are comparable to those on military installations,²⁷ and for which intergovernmental agreements existed in at least 15 percent of cities surveyed. Percentages shown in **bold** identify the dominant or near-dominant sources in each row. Note that intergovernmental agreements (labeled “other government”) are dominant or nearly dominant in only a small number of cases. But even where intergovernmental agreements

²⁴ Mildred E. Warner and Amir Hefetz, “Cooperative Competition: Alternative Service Delivery, 2002–2007,” *Municipal Year Book 2009*, Washington, D.C.: International City/County Management Association, 2009. ICMA has been surveying municipalities on alternative service delivery every five years since 1982. The 2007 survey was sent to 6,095 cities (with populations of more than 10,000) and counties (with populations of more than 25,000) across the United States. Additionally, smaller municipalities were randomly sampled in the 2007 survey. Overall response rate was 26 percent.

²⁵ ICMA actually sent the survey to 2,207 municipalities, but only 164 returned the survey.

²⁶ Mildred E. Warner and Amir Hefetz, “Service Characteristics and Contracting: The Importance of Citizen Interest and Competition,” *Municipal Year Book 2010*, Washington, D.C.: International City/County Management Association, 2010. The percentages in rows do not sum across columns to 100 percent, because any city can report multiple service types, and the table does not cover some smaller categories.

²⁷ Services produced by intergovernmental services that are not as likely to be of interest to DoD include workforce development and job training programs (with intergovernmental agreements present in 59 percent of cities), intake and eligibility for welfare programs (59 percent), mental health and retardation programs (57 percent), child welfare programs (53 percent), tax assessing (40 percent), operation of homeless shelters (37 percent), operation of airports (34 percent), tax bill processing (29 percent), collection of delinquent taxes (29 percent), and programs for the elderly (27 percent). DoD installations have mental health, training, and child and youth programs, of course, but they differ qualitatively from those that most cities provide to their residents.

Table 2.2
Relative Importance of Municipal Service Providers: Percentages for 2007

Service	All In-House	Some In-House	Other Government	For Profit	Not for Profit	Volunteer
Public health programs	25	21	52	6	13	
Drug/alcohol treatment programs	7	21	49	20	36	2
Prisons/jails	48	13	44	2	1	
Operation/maintenance of bus transit system	24	9	40	19	12	0
Disposal of hazardous materials	16	21	38	32	4	
Operation/maintenance of paratransit system	22	10	37	18	18	1
Insect/rodent control	35	15	35	21	3	
Operation of libraries	51	9	34	1	6	8
Title records/map maintenance	49	18	34	8	1	
Sanitary inspection	57	10	32	5	1	
Operation/maintenance of hospitals	3	2	32	40	38	0
Operation of animal shelters	34	9	30	9	22	4
Sewage collection/treatment	58	17	27	7	1	
Disposal of sludge	37	14	25	29	2	
Police/fire communications	67	13	25	1	2	
Water treatment	65	7	24	6	2	
Animal control	58	12	23	5	8	
Operation of convention centers, auditoriums	51	15	22	16	6	
Solid waste disposal	26	9	21	43	2	0
Operation of museums	24	15	20	4	38	19
Ambulance service	41	11	18	22	10	8
Emergency medical service	49	19	17	17	2	8
Traffic sign installation/maintenance	47	35	16	21	0	
Water distribution	73	9	16	6	2	

SOURCE: Warner and Hefetz, 2010.

NOTE: Percentages shown in bold identify the dominant or near-dominant sources in each row.

are not near to being the dominant choice when we look across all cities, it is clear that many individual cities prefer them.

The services in the table are ordered by those that are relatively most often provided by another government agency (i.e., the PuPs) from the highest to the lowest. The highest percentage was for public health programs, at 52 percent, with drug and alcohol treatment programs

at 49 percent and prisons and jails at 44 percent.²⁸ Surveyed municipalities relied mostly on a combination of in-house or on other government agencies more often for services, such as prisons and jails, operation of libraries, title records and map maintenance, sanitary inspection, police and fire communications, and water treatment. Yet for other services surveyed, municipalities relied more on the private or not-for-profit sector (or both), such as for the operation and maintenance of hospitals (both), operations of museums (not-for-profits), and solid waste disposal (private companies).

An analysis of ICMA survey data that compared the years 2002 and 2007 suggests that there are several factors that affect the decision to insource or outsource a service. One set of factors has to do with the level of asset specificity required to perform the service.²⁹ The greater the level of infrastructure, specialized skills, or equipment necessary to perform the service, the more likely a municipality is to insource it. A second set of factors involves the level of effort required to manage and monitor the contract to ensure cost and quality are acceptable. Thus, those services that exhibit poor competition, lack of cost savings, or complex monitoring are often insourced. Examples of services likely to be outsourced because of these factors are those with low asset specificity, good competition, and relative ease of contracting, such as street repair, traffic signs, fleet management, building maintenance, and park management. A third group of factors has to do with the political environment, such as community interest in maintaining control over the service characteristics and responsibility for quality.³⁰

However, these are broad generalizations as to how factors influence the sourcing decision of a municipality. Local community-specific differences in the level of competition and availability of alternative providers, organizational competency in contracting and contract monitoring, and political consequences of poor service delivery are other factors that also will ultimately affect sourcing decisions. In some cases, it might be prudent to sustain both public and private service providers as a means of maintaining competitive pressures on service cost and quality and ensuring internal capability remains in case of contract failure. This leads to the following questions:

- Why would most municipalities prefer to keep a particular service in-house, but other cities would prefer to outsource the same service?
- Given that most municipalities have chosen to outsource a particular service, why would they prefer to outsource to a government jurisdiction rather than to a private firm or not-for-profit organization?
- How do insights to these questions inform DoD actions?

From 2002 to 2007, surveys showed that a significant factor in the decision to outsource was the nature of competition among potential sources. DoD installations in remote locations are likely to face fewer viable sources of most services than those in metropolitan areas. This suggests that installations in remote areas may prefer to provide services in-house rather

²⁸ Warner and Hefetz, 2010.

²⁹ *Asset specificity* refers to the relative value an asset (human or physical), has to a specific transaction. Assets can have specialized or unique capabilities in terms of physical, human, location, or time characteristics or level of dedication for a certain purpose.

³⁰ Mildred E. Warner and Amir Hefetz, "Insourcing and Outsourcing of Municipal Services: The Dynamics of Privatization Among U.S. Municipalities 2002–2007," *Journal of the American Planning Association*, Vol. 78, No. 3, Summer 2012.

than rely on an external source when little competition is available to discipline that source or capability simply does not exist. Similarly, as mentioned, some municipalities may have greater expertise outsourcing than others. Municipalities that understand how to manage and monitor contracting effectively are more likely to get positive outcomes from external sources. This suggests that DoD should be cautious about pushing outsourcing at an installation until the installation knows how to do it effectively.

On the second question, once a city decides to outsource, there are some strong patterns in how cities choose between intergovernmental agreements and contracts with for-profit firms. We see a strong preference for intergovernmental agreements in services typically provided by public utilities—for example, transit, water, and sewage service. Cities also tend to prefer intergovernmental agreements in cases that have strong public-sector attributes—police and fire communication, sanitary inspection, animal control, public health, alcohol and drug treatment, and jail and prison, library, museum, and record-keeping services. It seems likely that individual cities find more governmental jurisdictions nearby than for-profit firms that do these things well. But in the end, for-profit firms still provide a portion of each of these services to individual cities. This reminds us that intergovernmental agreements are only one among multiple potential sources of services and, as stated earlier, the appropriate choice among these options can differ from one location to another.

Factors Needed for Successful Installation Partnerships

The partnership literature discusses many factors that are needed for a partnership to accomplish its objectives.³¹ Table 2.3 presents eight criteria associated with successful partnerships, which also helps define a more in-depth partnership. While these criteria are derived from the business literature, they are relevant to installation partnerships. In fact, we found that most of these factors were associated with thriving installation partnerships, especially the more in-depth partnerships.³²

As Table 2.3 indicates, it is critical that the partnership is important to participants and that working together contributes to the long-term goals of each partner. Often, the partnership's success will help each partner accomplish key objectives that would be challenging or impossible to attain alone. As a result of the complementary capabilities and core competencies each partner brings, coordinated action is required to advance toward the goals. Partners must coordinate responsibilities and activities by working across organizational boundaries in a manner that is consistent with the objectives of the partnership (even when there is a lot of instability and uncertainty).

Committed partners will invest the requisite personnel, time, and other resources necessary for success. Such investment creates specific assets that the partners must work together to protect in order for the partnership to persist and benefit all involved. Higher levels of commit-

³¹ For more information on such success factors, see Rosabeth Moss Kanter, "Eight I's That Create Successful We's," *Harvard Business Review*, July-August 1994b; Rachel Burstein and Edward Shikada, "Woes and Wows of Public-Private Partnerships," *PM Magazine*, ICMA, Vol. 95, No. 11, December 2013; Camm, 2005; Rosabeth Moss Kanter, "Collaborative Advantages: The Art of Alliances," *Harvard Business Review*, Vol. 72, No. 4, July-August 1994a, p. 98–108; Mohr and Spekman, 1994.

³² For example, see Uslar, 2012.

Table 2.3
Criteria for Successful Partnerships

Criterion	Brief Description
Individual excellence	Both partners are strong and have something of value to contribute to the relationship. Their motives for entering into the relationship are positive (to pursue future opportunities), not negative (to mask weaknesses or escape a difficult situation).
Importance	The relationship fits the major strategic objectives of the partners, so they want to make it work. Partners have long-term goals in which the relationship plays a key role.
Interdependence	The partners need each other. They have complementary assets and skills. Neither can accomplish alone what both can together.
Investment	The partners invest in each other (for example, through equity swaps, cross-ownership, or mutual board service) to demonstrate their respective stakes in the relationship and each other. They show tangible signs of long-term commitment by devoting financial resources.
Information	Communication is reasonably open. Partners share information required to make the relationship work, including their objectives and goals, technical data, and knowledge of conflicts, trouble spots, or changing situations.
Integration	The partners develop linkages and shared ways of operating so they can work together smoothly. They build broad connections between many people at many organizational levels. Partners become both teachers and learners.
Institutionalization	The relationship is given formal status, with clear responsibilities and decision processes. It extends beyond the particular people who formed it, and it cannot be broken on a whim.
Integrity	The partners behave toward each other in honorable ways that justify and enhance mutual trust. They do not abuse the information they gain, nor do they undermine each other.

SOURCE: Kanter, 1994-b.

ment suggests that partners are willing to spend the resources to address short-term problems (which are likely to arise) in order to attain long-term goals. This works only as long as the partners continue to trust one another. Part of this investment includes partners' leaders investing their time in, and providing support to, the partnership.

Successful partnerships are also characterized by organizational trust, where each partner will reliably work for the benefit of the partnership, fulfill obligations, and not misuse information to undermine the integrity of other partners. Each partner must also be accountable to the progress of the partnership. Organizational trust is especially important when managing setbacks, conducting joint problem-solving, and adapting to changing circumstances. The greater the commitment, willingness to coordinate activities, and trust among partners, the more likely the partnership is to accomplish its objectives. Having different partner personnel participate in on-site field trips to look at what happens at each of the partners' facilities helps contribute to ongoing trust among different staff within the partnering organizations because it helps individuals better understand the other partners' operations (including similarities and synergies) and it helps builds personal relationships.

Communication is another critical factor in partnership success. Each partner must be willing to provide accurate, relevant, and high-quality information in a timely manner (including sensitive information as necessary). Joint goal-setting and planning are two specific areas where communicating and sharing information are vital. Continuous dialogue and communication at multiple levels within the organizations is another indicator the organizations are

integrated and the partnership is working well. In general, communication in a trusted environment between partners is perhaps one of the most significant benefits of partnerships. As these organizational relationships become established over time, each partner gains a better understanding of the strategic choices faced by the other. As a result, the relationship can produce a wider, and perhaps more effective, set of options to meet the strategic goals and objectives.

Another key factor is the institutionalization of the partnership. Often, partnerships are started by an individual *champion*, who is the enthusiastic and motivated person (or persons) who helps create and operationalize the partnership. When the partnership has formal status, it will persist after such key players are no longer involved.³³ Institutionally, the partners have connections at multiple levels and are able to engage in joint conflict-resolution and problem-solving while avoiding such destructive techniques as domination or confrontation. At a minimum, partners invest leadership focus and time to learn about their partners' needs and capabilities.

These characteristics yield a nontraditional relationship for DoD among separate organizations. By their nature, partnerships involve organizations specializing in different capabilities and encouraging a mutually beneficial dependence so they can work together for common goals. By establishing organizational ties and sharing information, each learns about the other over time. This is very different from the traditional arm's-length arrangement that government has had with contractors in the past.

Another factor that contributes to a successful installation partnership is having an explicit well-written partnership agreement or contract. A well-written agreement document clearly spells out the goals, objectives, performance criteria, and the responsibilities of each partner, including how costs, other resources, and risks will be shared; and specifies the consequences to partners for failing to uphold their responsibilities. In addition, to fully leverage the expertise, resources, and capabilities of all partners, an agreement often outlines *what* is needed to meet the partnership objectives, rather than *how* work should be performed. (Not only does this help the partnership benefit from the expertise of all participants, it also provides flexibility to be innovative.) Ideally, the agreements would have a performance focus, rather than a requirements focus, to create the potential to support greater efficiency improvements and innovation. The level of detail in describing the *what* in any formal agreement will vary depending on a variety of factors, such as the level of complexity of the activity of interest, the experience of the partners in characterizing services needs and requirements, and the uncertainty surrounding changing conditions. Some may begin with a general or high-level statement of the services needed, and evolve the contract or agreement over time, as the partners exchange information, gain experience, and develop working-level relationships. This last point shows how the agreement or contract often has flexibility built in it for possible future changes, especially for installation partnerships that involve larger amounts of resources and risks.³⁴

³³ However, even with a formal status, each partner maintains some flexibility within the arrangement to allow the partnership to evolve over time.

³⁴ These characteristics of a well-written installation partnership agreement are also consistent with the literature on how to implement effective performance-based contracts for DoD installation services. In fact, for additional details on what to include in a well-written installation agreement or contract for installation services (whether a partnership or a buyer-provider agreement with a commercial firm), see Laura Baldwin and Sarah Hunter, *Defining Needs and Managing Performance of Installation Support Contracts: Lessons from the Commercial Sector*, Santa Monica, Calif.: RAND Corporation, MR-1812-AF, 2004.

Most successful partnerships tend to have most of these characteristics. For successful installation partnerships, we also found that it was important to have common goals, committed installation and partner leadership support, ongoing communications, persistence, and trust. For instance, having strong leadership support helped to overcome barriers that surface when trying to develop an installation partnership, such as staff who are reluctant to change and participate in a partnership.

We illustrate the importance of some of these success factors with two installation partnership examples: one between Naval Station Great Lakes and Goodwill Industries (Box 2.3) and one between the Presidio of Monterey and the City of Monterey (see the appendix of this report).

There were several key success factors identified in interviews and the literature for the Great Lakes Naval Station partnership with Goodwill industries. First, ongoing communications, honesty, and trust were key. Staff noted that the routine communication resulting from shared office space and contact during operations provided information on each others' priorities and management choices. This, in turn, allowed the staff to solve problems together before an issue became serious or difficult to address. Second, partners had clear measures of performance (customer satisfaction and cost, in this case) and incentives to exceed contract requirements. Third, staff continuity contributed to routine and effective communications, thereby facilitating flexible working relationships, and attention to longer-term objectives. Finally, flexibility in the contract was crucial. The aforementioned close working relationships, combined with enough flexibility in the contract, allowed the partnership to address longer-term objectives, such as cost efficiency, as opposed to being focused solely on existing contract requirements.

In the case of the Presidio of Monterey and the City of Monterey partnership, there was a similar, but not identical, list of success factors identified. First, clear motivation in the form of Base Realignment and Closure (BRAC) to move forward with innovative approaches to supporting the installation was a key catalyst. Second, communicative, creative, and persistent leadership was important for finding novel approaches to installation support services, staying the course, bridging cultural divides, and overcoming such obstacles as the perceived lack of authority and the preference stated in the Federal Acquisition Regulation (FAR) for firm, fixed-price contracts in lieu of cost-reimbursable contracts.³⁵ Another contributor to the partnership's success is the focus on key performance criteria—cost, quality, and customer satisfaction. Once a demonstration project was under way, the city's focus on cost reduction and continuous improvement (in part motivated by term contracts and the threat of competition) and on hiring high-quality, cross-trained building maintenance technicians helped the city provide efficient maintenance services. The work order system and activity-based costing methods provide the data that supported managerial decisions. And city management and staff were well versed in understanding installation goals and were empowered to support them. Finally, frequent and proactive communication between the customer (i.e., Presidio of Monterey) and the contract provider (i.e., city staff) ensured that the partnership could work toward mutual objectives and make necessary adjustments.

³⁵ General Services Administration, *Federal Acquisition Regulation*, last updated 2016.

Box 2.3. Partnership Between Naval Station Great Lakes and Goodwill Industries

The Naval Station Great Lakes is the largest training installation in the Navy. It is home to the only boot camp in the Navy, where approximately 38,000 new recruits train annually, and it also hosts the Navy's technical training schools for surface warfare, where more than 13,000 students train annually.

The significant population of recruits creates a large demand for clothing and linens laundering. Not only does the Naval Station Great Lakes have the largest laundry services in the Navy, it supports nationwide uniform issue. Since 1974, the Naval Station Great Lakes has contracted with Goodwill Industries for laundry services through an AbilityOne contract. AbilityOne contracts receive procurement priority (and therefore are not competed) in order to provide opportunities for the disabled.^a The partnership has grown over time to include administrative support (begun in 1996) and food and logistics services (begun in 1998). In fiscal year 2012, Goodwill staff served nearly 8.5 million meals managing 22 facilities,^b handled 2.4 million pieces of mail, issued 2.7 million uniform pieces to sailors and recruits, and processed 14 million pounds of laundry. The installation provides employment for nearly 1,400 people with disabilities, including visual, hearing, and physical impairments; developmental disabilities; and mental illness.

The key benefit from this long-lasting partnership is that it serves the objectives of each organization, which is aided by the close communication between the two and the understanding of each other's business models that has developed over time. The Naval Station Great Lakes' mission is to train sailors, so the contract allows personnel to focus on this objective without needing to manage support services. Goodwill's mission is to provide work experience, training, and an improved quality of life for people with significant disabilities, which is supported by providing high-quality services to the Navy. It also has provided cost savings for the Navy because of Goodwill's efficient operations.

The key to the partnership's success is that there is a lot of interaction on the Navy and Goodwill Industries, from shared office space to multiple contacts each week in the galley, which affords an improved understanding of how best to provide the needed services given such challenges as budgetary constraints. Since the two organizations work toward mutual benefit and have this rich experience of interacting and understanding, they are better positioned to solve problems together (before an issue becomes overwhelming) and achieve efficiencies beyond the contract stipulations. Moreover, a customer satisfaction metric in the contract provides another incentive to give high-quality service. Since it is difficult to enumerate all the requirements in a contract, especially in terms of quality, the partnership provides additional motivation to exceed requirements. The partnership also provides flexibility in the working relationship that facilitates a long-term view for the benefit of all (as opposed to a one-and-done view of a contract, where each party maximizes its own benefit in the short term). Some continuity in the contracting officer has contributed to a healthy level of communication and strengthened the relationship between the two organizations.

Goodwill Industries staff are constantly looking for efficiencies—in food services, for example—and then the savings can be reinvested in improved or additional services. The Navy and Goodwill Industries also worked together to reduce air emissions, water use, detergent use, and energy use generated by the laundry and dry-cleaning services. A team from the environmental department, Navy Exchange laundry, bachelor housing, and Goodwill eliminated all of the regulated hazardous air pollutants, reduced water and detergent use to 10 percent of traditional methods, and achieved a 40-percent reduction in energy. The lessons of the on-station laundry were transferred to off-station laundry (serving the bachelor quarters and other areas) through the partnership with Goodwill Industries.

Because of this close working relationship, the installation also partnered with Goodwill Industries to provide base-wide shuttle services for sailors and contract workers, which contributed to a reduction in vehicle use and an increase in ride-sharing, thereby reducing air emissions and fuel consumption. This cooperation continues among the Navy, Goodwill, and other tenant organizations at the Naval Station Great Lakes to reduce emissions and energy and water use.

SOURCES: Goodwill Industries of Southeastern Wisconsin, Inc., "Great Lakes Federal Services," 2014; AbilityOne, "Case History: Food Services at Great Lakes Naval Training Center," undated; Commander, Navy Installations Command (CNIC), "Naval Station Great Lakes," undated; Naval Station Great Lakes, "Fiscal Year 2010 Environmental Award Submission, Naval Station Great Lakes Sustainability—Non-Industrial Installation," 2012.

^a AbilityOne is a legislatively established program that supports employment of the blind and severely disabled and is the single largest employer of those groups. It is one of the two central nonprofit agencies that work with the nearly 600 independent nonprofit providers to provide goods and services to federal agencies.

^b The food services contract value is \$88.1 million.

Many Different Installation PuPs By Functional Areas

By examining the military and community partnership literature and news stories, through interviews of installation and community partners, and by examining actual military partnership websites and agreement documents, we identified hundreds of diverse installation partnerships. Across the Department of Defense (DoD), we estimate that installations are already involved in thousands of innovative and diverse installation public-to-public partnerships (PuPs),¹ based on the unique circumstance, needs, and capabilities of the local installation and nearby communities. We found that installation PuPs occur in almost every major nonmission installation functional and service area, and even in some mission areas. This chapter presents an overview of the different types of installation partnerships by functional areas.

We organized the myriad examples of installation PuPs into 17 functional areas that were grouped into three main categories: installation infrastructure and management areas; services for the military, their families, retirees, and DoD civilians; and mission and other types of functions, as shown in Table 3.1.

Table 3.1
Installation Partnerships Focus on a Range of Functional Areas/Services

Installation infrastructure and Management Areas	Services for the Military, Their Families, Retirees, and DoD Civilians	Mission and Other Types of Functions
<ul style="list-style-type: none"> • Fire, emergency medical service (EMS), and other emergency services • Safety and security • Water • Energy • Environmental • Transportation • Operations and Maintenance (O&M) 	<ul style="list-style-type: none"> • Children • Recreation • Adult education • Libraries • Family advocacy/social services • Medical and health issues • Other support for military personnel and their families 	<ul style="list-style-type: none"> • Testing and training missions • Other military missions • Other areas

¹ We estimated thousands of installation partnerships exist based on (1) knowing that several hundred U.S. military installations exist across all the Services, (2) the range and types of common partnerships that we identified by different functional areas at a smaller set of installations, and (3) our calculation that similar partnerships likely exist at other DoD installations with similar characteristics (such as size, region, mission, etc.). For example, many installations have emergency service mutual-aid partnerships with different state and local jurisdictions that have authority near them. Many larger installations have a dozen or more of these agreements. Some even have two dozen or more—such as Picatinny Arsenal, which has 24 such agreements with state and local governments. We also based this estimate on examining the lists of the total number of partnership agreements at several installations and by examining the estimated total number of installation partnerships across DoD in various program areas, such as Readiness and Environmental Protection Integration (REPI) and Utility Energy Service Contract (UESC) partnerships.

There are many different partnership types and examples within each of these installation functional areas. To explain this variety, we provide an overview of the types of partnerships that occur in each of the 17 functional areas within each of the three categories.

Installation Infrastructure and Management Partnerships

The first category is for PuPs that relate to managing and operating the installation. Often, Department of Public Works (DPW) functions fall in this area for operating and maintaining water, buildings, roads, energy, and other key infrastructure. Partnerships related to transportation, safety, security, and emergency response are also in this category. For discussion purposes, we have grouped these areas into seven functional areas, as shown in Table 3.1 and discussed here.

Fire, Emergency Medical Service, and Other Emergency Services

This functional area includes partnerships that involve mutual aid with local emergency departments to share fire and EMS resources (trained personnel, equipment, and vehicles) during large natural disasters, medical emergencies, and other incidents. This PuP type is also one of the most common. Most installations have at least one mutual aid agreement (MAA) with a local city or county fire department and many have multiple agreements. For example, Picatinny Arsenal has the same mutual aid agreement for emergency response with 24 different local and state agencies. Some installations have developed specialized emergency medical and fire response MAAs, such as those for dealing with wild lands fires. An example of a specialized emergency response partnership is the Bethesda Hospitals' Emergency Preparedness Partnership (BHEPP). This partnership is a collaboration among the National Naval Medical Center (NNMC), Suburban Hospital Healthcare System (SHHS), and National Institutes of Health Clinical Center (NIHCC) to provide coordinated emergency medical response during a large-scale disaster (see Box 3.1).

This area also includes PuPs related to evacuation during emergencies; joint training; and sharing of emergency equipment, facilities, and bomb squads. For instance, one smaller Army installation has partnerships with two community churches to serve as evacuation shelters for installation children in case they ever need to be evacuated from the installation childcare facility during an emergency. A joint training example is Naval Air Station (NAS) Patuxent River fire response personnel conducting training with local volunteer fire departments in Maryland.² Another interesting training example is Cannon Air Force Base (AFB) in New Mexico, which has partnered with local communities in a firefighter cross-training exchange program. Each fire department is exchanging two firefighters to work in another organization's fire department.³ Sharing of equipment and facilities can include everything from fire hose testing equipment to ambulances to fire stations. For instance, Altus AFB and the City of Altus, Oklahoma, share equipment for fire hose testing and repair. Altus AFB uses the city's hose-coupling repair machine and the city uses base hose-testing equipment. This example also illustrates how the community and base are sharing different specialized repair and testing

² Maryland Department of Business and Economic Development, "Maryland Military Installation Partnering Reference," April 2014, page 46.

³ U.S. Air Force (USAF), "Implemented Partnership Agreements," November 25, 2014b.

Box 3.1. Bethesda Hospitals' Emergency Preparedness Partnership

The Bethesda Hospitals' Emergency Preparedness Partnership is a collaboration among the three major medical centers in Bethesda, Maryland: the National Naval Medical Center (NNMC), the Suburban Hospital Healthcare System (SHHS), and the National Institutes of Health Clinical Center (NIHCC). It was created in the aftermath of the September 11, 2001, terrorist attacks to improve the response to a major emergency while taking advantage of the complementary skills and assets of these three medical centers, which are in close geographic proximity. Specifically, the NNMC is tied closely to the Department of Defense (DoD), and the staff has extensive emergency response training; the SHHS has trauma and acute-care capability, as well as close ties with the local community, regional, and state responders; and the NIHCC has substantial research resources, surge capacity, and diagnostic capability. Through the partnership, members seek to provide a comprehensive local disaster response. This involves coordinating with regional authorities; contributing to a national response; educating staff about roles, responsibilities, processes, procedures, and strategies; and conducting research. Through the partnership these organizations have held multiple joint drills and tabletop exercises to train personnel and test their joint emergency response capabilities.

Several elements contributed to the successful creation of this partnership. First, institutions were strongly motivated after September 11 and the sense of inadequate institutional preparedness and urgency that resulted. Another was the vision of the NNMC base commander and his persistence in championing the cause. In addition, the leadership in each organization recognized the complementary capabilities of the others, and that a partnership would create greater capability than would exist individually. Having a champion for the partnership, strong leadership support, and complementary assets were all key to partnership success. The leaders of the partnership also identified the key elements of a robust operational infrastructure that could be used to measure success and accountability. The elements of the infrastructure include: surge capability, triage, supply stockpile, decontamination, transportation, communication, workforce management, and information technology.

Three barriers to the success of the partnership were identified and overcome. The first was the diverse organizational cultures of the three organizations, which made it challenging to create a cohesive, singular operational plan. The second was the different medical information systems, which were too costly to interface electronically. And third were the financial and human resources required to develop and sustain the partnership. These were difficult to isolate when overall resources were tight, which was alleviated in part by selecting individuals who had successes in the past and were dedicated, engaged, and held accountable.

SOURCE: D.K. Henderson, et al., "Bethesda Hospitals' Emergency Preparedness Partnership: A Model for Trans-institutional Collaboration of Emergency Responses," *Disaster Medicine and Public Health Preparedness*, Vol. 3, No. 3, 2009.

devices so that neither organization has to invest in the extra equipment. Another interesting facility partnership involves South Dakota's Ellsworth AFB providing the Federal Emergency Management Agency (FEMA) with office space on the base so it can provide timely emergency winter storm assistance. A fire station example occurs in Alaska, where Fort Wainwright partnered with a local community to provide some fire services to the post in exchange for the community's fire department using the post's fire station.

Emergency response and services that relate more to security issues and police departments, such as sharing Special Weapons and Tactics (SWAT) teams and responding to criminal activities, are discussed in the safety and security category. There is some overlap between this area and some medical and health issues, so some of those partnerships are only discussed there.

Safety and Security

This functional area contains partnership examples that relate to safety and security issues at the installation and in the community. PuPs here include those that involve sharing resources (personnel, equipment, and vehicles) related to law enforcement and police services, such as sharing SWAT teams. In some cases, the installation is relying on the community for help. A

common partnership here is for the community to provide jail services for the installation. For instance, Oklahoma's Tinker AFB has a partnership with Midwest City to provide jail service for short-term housing of military detainees and inmates (see Box 3.2). Some installations also rely on the community for help from police department SWAT teams, as NAS Kingsville does with Kingsville, Texas. At another installation, a state police helicopter responds to reports of criminal activity on the installation when installation staff request help. All these examples illustrate how the community is providing trained personnel, equipment, and/or facilities that the installation either does not have or in which it lacks capacity.

In other cases, the installation is supplying help to the community because the community does not have enough capacity to provide the needed trained personnel, equipment and/or facilities. For instance, NAS Fallon in Nevada provides assistance to Churchill County and other local agencies in law enforcement, physical security, and antiterrorism operations. At U.S. Army Garrison (USAG) Adelphi Laboratory Center in Maryland, the Montgomery County Police Department is using an installation parking lot for parking police vehicles. This last example also includes a benefit to the installation, since the Montgomery County police "monitor the area in their travel" to and from the parking spots.⁴ Lastly, some of these partnerships involve mutual sharing of resources, such as the example of the Fort Bragg checkpoint for driving while intoxicated that was discussed in Chapter Two. Another mutual sharing security example, this one from overseas, involves an installation partnering with a host nation for the mutual protection of Very Important Persons.

Box 3.2. Midwest City Providing Jail Services to Tinker Air Force Base

Through the U.S. Air Force (USAF), the Public-Public and Public-Private (P4) Initiative Tinker Air Force Base (AFB) has been exploring partnership opportunities with nearby cities, including Midwest City. One of the first opportunities identified for collaboration was jail services. In 2013, the city and Tinker AFB signed a memorandum of agreement (MOA) regarding jail services. Under this agreement, the Air Force can place male and female military detainees at the city's jail for short periods either prior to Uniform Code of Military Justice (UCMJ) proceedings or for post-trial incarceration, not to exceed one year. Midwest City receives \$48 per day per prisoner held.

This partnership provides benefits to both partners. Midwest City had expanded and renovated its jail, giving it some excess capacity and improved security (surveillance cameras were installed). The agreement provides the city with additional revenue at little additional expense. The Air Force saves time and expenses by using the closer facility (prior to this agreement, it was using a facility some 30 miles away in Shawnee, Oklahoma, causing personnel to travel an estimated 3,600 miles per year). By transferring detainees to a closer facility, the USAF saves defense attorney, prosecutor, and military police time, along with transportation expense estimated at \$4,000 per year, for the reduction of 48 miles for each round trip to a facility.

The MOA for this partnership used the authorities provided in:

- Air Force Instruction 31-205, "The Air Force Corrections System," April 7, 2004
- Air Force Instruction 25-201, "Support Agreement Procedures," October 18, 2013
- DoD Instruction 4000.19, "Interservice and Intragovernmental Support," August 9, 1995.

SOURCE: Tinker AFB, "Memorandum of Agreement (MOA) Between Tinker Air Force Base and the City of Midwest City Jail," March 27, 2013a; Vicki Middleton, "MWC, Tinker Partnership Enters New Chapter," *EastWord News*, March 27, 2013; Department of Defense, "Interservice and Intragovernmental Support," Office of the Secretary of Defense, Department of Defense Instruction (DoDI) 4000.19, August 9, 1995.

⁴ USAG Adelphi Laboratory Center, "MOA between USAG Adelphi Laboratory Center and Montgomery County Police Department," October 5, 2011.

Such partnerships can also involve training and information-sharing between installation and community law enforcement officials. For example, Fort Carson in Colorado has a monthly law enforcement breakfast where installation staff meet with all the local police departments to share information informally. A joint training example occurs at Oklahoma's Altus AFB, which has a memorandum of understanding (MOU) with the City of Altus for a joint law enforcement driver's training course. The base provides a training location, while the Altus Police Department provides the trainers.

Partnerships that relate more to the training mission of the installation, such as sharing shooting ranges, are discussed in the testing and training mission section of this chapter. Partnerships that coordinate the responses to crimes involving families, such as child abuse and domestic violence, are discussed in the family advocacy and social services section.

Water

Water partnerships include those focused on water conservation, wastewater treatment, use of reclaimed water, water and wastewater infrastructure, and water supply. Installations and communities may treat each other's wastewater, either for a fee or in-kind service through a partnership arrangement. An interesting partnership example that involves one installation providing services to a community and also receiving the same services from another community occurs at Marine Corps Base (MCB) Quantico, which supplies water and wastewater to the Town of Quantico, Virginia, while Stafford County provides water and wastewater to the west side of MCB Quantico. A partnership regarding wastewater infrastructure involves Florida's Okaloosa County using 225 acres on Eglin AFB to build and operate a 10-million-gallon-per-day wastewater system that treats both installation and community effluent. Eglin AFB has provided a 30-year lease to Okaloosa County for the property with payments to the base of \$325,000 a year for the construction of the Arbennie Pritchett Water Reclamation Facility.⁵

Some water PuPs focus on collaboration for water conservation and others on the use of reclaimed water for water conservation goals or to enhance water supply. For instance, Howard County, Maryland, partnered with the National Security Agency (NSA) at Fort Meade to provide reclaimed water for cooling needs at NSA's new 600,000-square-foot computer center (see Box 3.3). Another partnership focused on enhancing water supply occurred at Fort Bliss in Texas. Fort Bliss and El Paso Water Utilities (EPWU) partnered in the development and construction of a desalination plant located on Fort Bliss but owned and operated by the utility. The facility treats brackish groundwater and helps protect water quality in the aquifer, and provides additional potable water to EPWU customers, i.e., the community and Fort Bliss.

Additionally, the costs of constructing or maintaining infrastructure (such as reservoirs or pipelines) may be shared through partnership agreements. Water PuPs also include sharing of water storage and transfer infrastructure, such as a western installation sharing a small reservoir with a local city.

This area also includes partnerships for providing capital, installing, and/or operating water efficiency investments, such as in a UESC or an Energy Savings Performance Contract (ESPC). Some installation UESCs and ESPCs that focus on implementing energy efficiency technologies also include some water conservation technologies, such as retrofitting water fixtures. For

⁵ This deal used an Enhanced Use Lease (EUL) agreement, which legally is a real estate deal, not a partnership. However, often an EUL arrangement can act like it is a partnership because of the relationship that develops between the installation and the partner, so some EULs are included in this report.

Box 3.3. Reclaimed Water Partnership Between Howard County and the National Security Agency at Fort Meade

In 2010, the National Security Agency (NSA), a tenant at Fort Meade in Maryland, was planning to build a new 600,000-square-foot computer center, which would need large amounts of water for its operation. At the same time, Howard County was dumping about 18 million gallons of treated wastewater per day into the Little Patuxent River from the Little Patuxent Water Reclamation Plant. The county is charged for this discharge, and Howard County Public Works Department staff were concerned about reaching the plant's discharge limit as determined by its Clean Water Act requirements. The deputy director of the Public Works Department met with staff at the Howard County Mission Growth/Base Realignment and Closure (BRAC) Office to see if anyone at Fort Meade might be able to use nonpotable water. Staff from the Howard County Mission Growth/BRAC Office contacted Fort Meade and the NSA. NSA personnel expressed some interest in the water.

After over two years of negotiation, Howard County reached a deal to supply treated wastewater to cool this new NSA computing center. NSA will receive as much as 5 million gallons of nonpotable water per day when the computer center opens in 2016. Howard County is paying \$40 million to build a water pump station for this project, which is funded through bonds. NSA began paying the county back for this investment in 2015 and is estimated to pay about \$2 million per year for the treated wastewater.

Through this partnership, NSA gains a cheaper secure water source for its computer center. The nonpotable water is cheaper than the alternatives of using tap water or drilling wells that also would have stressed an aquifer already burdened by rapid development in the area. NSA is estimated to save \$34 million over ten years and \$95 million over 25 years. NSA also helps the environment by leaving the groundwater alone and using reclaimed water.

Howard County benefits from this partnership because it reduces the amount of treated wastewater that it discharged in the river and ultimately the Chesapeake Bay, stays below its discharge limit, and earns some income from the reclaimed water. It also helps lift development restrictions that the county was facing from the wastewater discharge cap.

SOURCES: Raj Kudchadkar, "Utilities Taking the Lead on Installation-Community Water Security," presentation, *ADC 2014 National Summit*, Association of Defense Communities, June 6, 2014; and Matthew Hay Brown, "Howard and NSA Reach Deal to Cool Computer Center with County's Treated Wastewater," *Washington Post*, January 2, 2014.

example, the Navy has partnered in an ESPC project with Trane and Hampton Roads Sanitation District at Naval Air Station Oceana Dam Neck Annex in Virginia to install energy and water conservation measures, including retrofitting faucets, toilets, urinals, and showers in 36 buildings. Because of the longer payback for water technologies, UESCs and ESPCs usually do not focus just on water. However, one ESPC we discussed in Chapter Two does: The ESPC arranged by Dyess AFB in Texas invested in infrastructure for the use of reclaimed water. This category also includes agreements for privatizing an installation's water supply and/or wastewater facilities and distribution systems, because some of these contracts may function more like a PuP as a result of the long-term mutually beneficial relationships that develop.

Watershed partnerships that focus on broad environmental concerns are discussed in the environmental section of this chapter.

Energy

Energy partnerships often involve partners that help to provide capital and that install and/or operate more-energy efficient equipment and systems. Such partnerships are often implemented through a UESC with a public utility or an ESPC involving a private company.⁶ For

⁶ Since ESPCs function similar to public-to-public partnerships, we include them here. Given the long-term special relationship between installations and energy utilities, and how these utilities are regulated, such partnership similarities are more common with installation energy partnerships.

example, Fort Knox in Kentucky has been implementing UESCs in partnership with Nolin Rural Electric Cooperative Corporation (RECC), a public utility, for about 20 years (discussed in Box 4.3). Nolin has paid for the energy efficiency investments, and Fort Knox has been paying it back from its energy savings over time. Energy efficiency projects have included ground source heat pump (GSHP) installations; boiler upgrades and replacements; lighting retrofits; window/roof replacements; heating, ventilation, and air conditioning (HVAC) system replacements; high-efficiency motor retrofits; Energy Management Control System (EMCS) equipment; and occupancy sensor installations. The UESC projects also pay for the operations and maintenance staff for these energy equipment and systems.

Installation energy partnerships also include efforts to help installations acquire capital and build energy facilities, such as on-site power generation facilities for energy security. Such partnerships may be with a public or a private company or involve both. For instance, Tinker AFB and Oklahoma Gas and Electric (OG&E) partnered to install on-site power generation at the base to provide it with energy security (see Box 3.4). Partners also may help to facilitate, build, operate, and maintain large-scale renewable energy projects on installations, such as waste-to-energy plants and large-scale solar arrays. For example, as discussed in Chapter Two, Fort Carson partnered with Xcel Energy, the Western Area Power Administration (WAPA), and several companies to build and operate a 12-acre two-megawatt solar array on the installation (see Box 2.2). Another type of renewable energy technology partnership is one that uses methane-to-power conversion from a landfill to provide energy to the installation. For example, Marine Corps Air Station (MCAS) Miramar partnered with the City of San Diego for the city to recover methane gas from the city's landfill and convert it to electrical energy that it supplies to the base and the local electrical grid. The Navy actually leases the landfill property to the city, about 476 acres on the south end of MCAS Miramar.

PuPs in this area also include exploring energy resources on an installation and ones that involve sharing the cost of building, operating shared energy pipeline infrastructure (such as

Box 3.4. Tinker Air Force Base and Oklahoma Gas and Electric Partnership

Tinker Air Force Base (AFB) and Oklahoma Gas and Electric (OG&E)^a partnered to install on-site power generation at the base that enables Tinker AFB to isolate itself from the power grid during a tornado or other emergency situation. OG&E installed an 80-megawatt peaking generating station in 1988 and owns, operates, and maintains the plant. Deployment of this on-site power generation capacity helps ensure that the base will have power for mission-critical functions during natural disasters, potential terrorist attacks, or other emergency power situations when the grid may go down.^b

Tinker AFB provides the long-term ground lease at no cost to OG&E and has first right to the electrical power generated by the plant. OG&E is responsible for all electrical lines, connections, switches, metering, permits, pollution controls, and reporting. Tinker AFB benefits from the collaboration with OG&E because the plant provides energy security in the case of a disaster. Tinker AFB will be able to have power during a crisis or emergency, at no up-front cost to the base. The arrangement also confirms OG&E's commitment to providing reliable power to the base. OG&E benefits by having an additional 80-megawatt peak generating capacity.

SOURCE: Federal Utility Partnership Working Group "FUPWG Fall 2008 Report," fall 2008 meeting, Williamsburg Va., November 19–20, 2008.

^a We should note that OG&E is a publicly traded company, so technically this example is a public-private partnership rather than a public-to-public partnership. It is a good example of how some public-private partnerships can function like public-to-public partnerships.

^b The energy security afforded by on-site generation requires an uninterrupted access to a fuel such as natural gas or diesel.

an electric power line), or both. For instance, an Army installation in the western United States partnered with a county and private company to explore the geothermal energy potential at the installation, while a USAF base partnered with a utility to share the construction and operating costs of a nearby high-voltage electrical transmission line.

Environmental

This area includes PuPs that focus on a variety of environment-related issues, such as partnerships for Earth Day activities, individual species monitoring, solid-waste management, watershed management, and large-scale ecoregional planning. Partnering with diverse local, state, and other federal and community organizations for Earth Day, recycling, environmental cleanup and sustainability events is a common type of partnership, usually as less formal partnerships. For example, Naval Base Sugar Grove in West Virginia held an annual Safety, Health, and Environmental Fair in April in collaboration with diverse local, state, and federal organizations, including the Department of Defense Chesapeake Bay Program, the Virginia and West Virginia State Police and Departments of Natural Resources, the U.S. Fish and Wildlife Service, the West Virginia Department of Agriculture, and the American Red Cross.

Common environmental PuPs include environmental monitoring and habitat research and management for different types of species, especially threatened and endangered species (T&ES), and natural resources. Because of the Endangered Species Act (ESA), military installations are required to monitor, protect, and try to improve the habitat of T&ES. An interesting series of partnerships, in which the partner helps monitor, research, and try to recover an endangered species, occurs at Camp Pendleton in California, which has partnered with the University of Washington Center for Conservation Biology to help staff locate endangered Pacific pocket mouse populations, and with multiple partners, including the San Diego Zoo Institute for Conservation Research, in a captive breeding program of the mice (see Box 3.5). Such environmental species and habitat partnerships can also focus on game species. For instance, Fort Drum has a partnership with the State University of New York, Environmental Science and Forestry, in helping scientists study the survival rate of ruffed grouse during the hunting season under different forest conditions. The post provided a study area for the collection of biological data for a landscape ecology and survival study of ruffed grouse.⁷ A very different types of species management collaboration has to do with managing nuisance wildlife control. Tinker AFB has a partnership with the City of Del City, Oklahoma, for “intergovernmental support and management to prevent issues with nuisance resident geese and wildlife damage at Eagle Lake in Del City.”⁸ Through this MOU arrangement, city and base staff work together to help reduce the bird air strike hazard (BASH) near the Tinker AFB runway.

This functional area also includes installation-community partnerships that focus on solid waste management, reuse, and recycling, such as providing trash pickup and sharing each others’ facilities. For example, the City of Sierra Vista provides refuse pickup for Fort Huachuca in Arizona. Facility sharing includes the installation using community facilities; for instance, Carlisle Barracks in Pennsylvania uses the Borough of Carlisle’s composting facility, and Fort Meade disposes of nonhazardous household and construction waste at a reduced tip-

⁷ For more information, see Megan Skrip, “Fading Drums: Does Hunting Play a Role in the Decline of Ruffed Grouse in New York?” *New York State Conservationist*, October 2010.

⁸ Tinker Air Force Base, “Memorandum of Understanding Between Tinker Air Force Base and the City of Del City for Wildlife Damage Management at Eagle Lake,” Del City, Oklahoma, September, 2013b.

Box 3.5. Camp Pendleton Partnerships to Save an Endangered Species

Located along the coast in Southern California, which has been extensively developed, Camp Pendleton is home to 16 federally listed threatened or endangered species. Camp Pendleton has been involved in two different partnerships to help save the endangered Pacific pocket mouse (PPM). The mice exist only at four locations: three on Camp Pendleton and one at a nearby park. The largest known PPM population is on Camp Pendleton, in a training area near a firing range and bivouacking area. Because of the Endangered Species Act, the installation is required to monitor the species, protect it, and improve its habitat. To help in its monitoring activities and plan for the PPM, Camp Pendleton partnered with the University of Washington Center for Conservation Biology to help staff locate the mice. University of Washington scientists used trained dogs to perform scent surveys for a sampling study to find the homes of these mice. Dogs and handlers worked 269 cells in established grids of occupied habitat on the installation wherein the dog communicated positive "hits" to her handler. This method was used to increase the boundaries of the known PPM population on base and was more efficient because the dogs searched more territory in a shorter amount of time than the traditional trapping method.

Camp Pendleton also partnered with the United States Fish and Wildlife Service, the Center for Natural Lands Management, the California Department of State Fish and Game, California State Parks, and the San Diego Zoo Institute for Conservation Research in a captive breeding program of the PPM. In 2012, this multi-organization recovery team successfully coordinated the capture of 22 animals, which are being housed at the San Diego Zoo. The Institute for Conservation Research has been leading this effort to trap, house, and raise a genetically diverse sample of the endangered mice. From May through August 2013, 16 baby mice were born at the San Diego Zoo as part of this captive breeding program. More mice were born during spring 2014. The Institute's scientists are also monitoring and studying base PPM populations by capturing mice on base, putting transmitters on them, and releasing them. Transmitters in the shape of tiny backpacks are placed on the mice.

SOURCES: Office of the Secretary of Defense, Office of the Secretary of the Navy, "FY 2012 Environmental Award Nomination, Natural Resources—Large Installation, MCB Pendleton," 2012; Chris Clarke, "Happy News for a CA Species Once Thought Extinct," KCET, April 11, 2014; San Diego Zoo Global, "Tracking the Cheeky Pocket Mouse," undated.

ping fee in Arundel and Howard County facilities in Maryland. Facility sharing also includes the community using an installation facility, such as the Town of Highlands, New York, using the Army's West Point's transfer station for town trash. An interesting waste reuse partnership between Eglin AFB and Okaloosa County involves concrete waste. Eglin AFB provides used concrete to the county for it to use for constructing artificial coral reefs, which helps recover coral reefs and improves fishing habitat. The base saves the concrete disposal costs of \$40 per ton while the community has cost savings in building the coral reefs.

Another type of environmental installation PuP partnership focuses on environmental contamination cleanup, especially when part or all of an installation is transferred to a community and needs to be cleaned up, such as with installations that have been closed because of the BRAC process. Environmental Cooperative Agreements, also called Environmental Services Cooperative Agreements, have been used to transfer funding to communities for environmental cleanup, such as at the former Treasure Island Naval Station and Oakland Army Base in California and Kelly AFB in Texas.⁹

Environmental installation partnerships also include collaborative natural resource management, watershed, and regional ecosystem partnerships. For instance, Joint Base Lewis-McChord in Washington (JBLM) has partnered with local and state agencies on watershed planning and natural resources by holding town hall meetings with surrounding communities regarding the Murray and Sequalitchee Creek watershed management plan and working with

⁹ For more information, see State of California, Department of Toxic Substances Control, "California Military Base Reuse," undated; U.S. Air Force Civil Engineer Center, "Kelly Cleanup: Air Force Committed to Kelly Cleanup," undated.

the Washington Department of Natural Resources and Department of Fish and Wildlife on species and habitat management issues.¹⁰ An example of a regional ecosystem partnership is the Everglades Headwaters Conservation Partnership. This partnership includes Avon Park Air Force Range (APAFR), United States Fish and Wildlife Service (USFWS), Florida state parks and wildlife management areas, The Nature Conservancy (TNC), and other federal, state, and private landowners. The Everglades Headwaters Conservation Partnership is trying to preserve Florida's grasslands and prairies by working together to conserve and manage natural areas through conservation corridors and conservation easements.¹¹ Avon Park Air Force Range's participation in this partnership also helps prevent encroachment, because having conservation easements and parklands near the installation helps prevent incompatible development. In fact, many of these ecosystem partnerships also help with encroachment concerns (see the Other Military Missions section for more about partnerships that address encroachment concerns). Two other examples of regional ecosystem management partnerships that involve military installations and also help with encroachment issues are the Gulf Coastal Plain Ecosystem Partnership (GCPEP) in Florida, in which Eglin AFB, NAS Whiting Field and NAS Pensacola are partners (see Box 2.1) and the Central Shortgrass Prairie Ecoregion Partnership, in which Colorado's Fort Carson has played an active role (discussed later in this chapter in Box 3.16).¹²

Lastly, installation partnerships involving cultural resources management, research, and public access are included in this functional area. Naval Air Weapons Station (NAWS) China Lake in the California desert is a military installation that is rich in Native American cultural sites and has several cultural resource partnerships. Since 1979, NAWS China Lake has had a partnership with the Coso Ad Hoc Committee, Owens Valley Paiute-Shoshone Band of Native Americans. This partnership (implemented by a MOA) grants access by Native Americans to the Coso Hot Springs and Prayer Site areas on base because of their cultural, traditional, and religious significance to Native Americans. The partners also have been cooperating by developing a preservation and management plan for the areas. NAWS China Lake has also partnered with the Maturango Museum for museum tours of Little Petroglyph (Renegade) Canyon. The installation provides controlled access for this museum to conduct up to six tours per month by certified tour guides with NAWS training.¹³ Installation cultural resource partnerships also exist for cemeteries and historic buildings, such as a partnership at Georgia's Fort Stewart with the Fort Stewart Historic Communities Council, where the installation provides tours of historic cemeteries, buildings, and other sites on post. Such cultural resources partner-

¹⁰ Beth E. Lachman et al., *Developing Headquarters Guidance for Army Installations Sustainability Plans in 2007*, Santa Monica, Calif.: RAND Corporation, MG-837-A, 2009, p. 59.

¹¹ For more information, see USFWS, "Everglades Headwaters National Wildlife Refuge and Conservation Area," January 9, 2014; and Eric McGill, "Avon Park Air Force Range Receives Interior Secretary Award," U.S. Air Force Civil Engineer Center, October 25, 2012.

¹² For more information, see B. Neely et al., *Central Shortgrass Prairie Ecoregional Assessment and Partnership Initiative: Final Report*, Nature Conservancy of Colorado and the Shortgrass Prairie Partnership, November 2006.

¹³ For more information on these partnerships, see Office of the Secretary of Defense (OSD), "FY 2003 Cultural Resources Conservation, Large Installation: Naval Air Weapons Station, China Lake, California;" OSD, "FY 2005 Secretary of Defense Environmental Award Cultural Resources Management—Installation: Naval Air Weapons Station, China Lake, California."

ships also have been created to help educate the public about the cultural history of an installation, such as the Voice of the Sandhills project at Fort Bragg in North Carolina.¹⁴

Environmental issues related to water, energy, and health are discussed in those sections of this chapter.

Transportation

Transportation PuPs are divided into three areas: bus and vanpool services; roads, traffic, and vehicle issues; and airports and railroads. Bus and vanpool partnerships involve partners providing on-installation bus and vanpool services, as well as buses for emergency evacuation. For instance, Hill AFB signed an MOA with the Utah Transit Authority (UTA) for UTA to provide bus service from nearby communities onto and around the base, and Fairfax County provides a commuter bus service to Fort Belvoir from a nearby Metro station and the Virginia Railway Express rail system on weekdays. Several installations have been involved in vanpool partnerships because they help reduce commuter expenses, vehicle maintenance, energy consumption, traffic congestion, and air pollution. For example, Keesler AFB in Mississippi has partnered with vRide and the Coast Transit Authority's "Coast Commuter" program to provide vanpools for base employees to share for commuting (see Box 3.6). At another installation, the local school district provides the installation with buses for transportation during mobilization or declaration of war.

Roads, traffic, and vehicle partnerships often involve the community helping to maintain roads and vehicles, such as providing an installation with street maintenance. For instance, Fort Bliss has been involved in a partnership with the City of El Paso, in which the city helped fix potholes on installation streets; the City of Sierra Vista provides Fort Huachuca with traffic signal maintenance support. An O&M roads partnership between Seymour Johnson AFB and the North Carolina Department of Transportation for pretreating base roads for ice saves the base \$10,000 per year in cost avoidance for equipment and chemicals. Such partnerships also can involve the community using installation land to build a road. For example, the Mid-Bay Bridge Authority in Florida partnered with Eglin AFB to use part of the base's property to build a bridge connector road that lessens traffic congestion and redirects traffic out of nearby neighborhoods.

Airport PuPs often focus on sharing airfield facilities. More than 20 installations across the country have joint civilian/military (joint use) airports, including Dover AFB (Delaware), Eglin AFB, Grissom AFB (Indiana), Kelly/Lackland AFB, Scott AFB (Illinois), Sheppard AFB (Texas), Fort Hood (Texas), Fort Huachuca, Fort Pickett (Virginia), Fort Stewart (Georgia), and MCAS Yuma (Arizona).¹⁵ For instance, Fort Leonard Wood and the City of Waynesville, Missouri, have a partnership for the joint use of Forney Airfield facilities for the Waynesville Regional Airport in exchange for rent from the city. Installations also have partnership arrangements to coordinate airspace issues with nearby civilian airports. For example, a western military installation has a letter of agreement (LOA) with the nearby community airport

¹⁴ This partnership developed a "Web site and an accompanying video to educate and entertain students, teachers, researchers, and interested citizens" about the "many voices of the Sandhills expressed through archaeological investigation, historical research, oral traditions, music, food, arts and crafts, customs, traditions, and faith." Fort Bragg, *Voices of the Sandhills*, 2010; Jonelle Kimbrough, "Voices of the Sandhills Links Fort Bragg's Past, Present and Future," U.S. Army, March 2, 2012.

¹⁵ See a list of joint-use airports at Federal Aviation Administration, "Joint Civilian/Military (Joint-Use) Airports," modified December 1, 2015.

Box 3.6. Vanpool Partnership at Keesler Air Force Base

Keesler Air Force Base (AFB) in Mississippi has partnered with vRide and the Coast Transit Authority's "Coast Commuter" program to provide van pools for base employees to share for commuting. Through this partnership, van pools have been organized for groups of five to 15 people who commute to the base on a regular basis. In summer 2014, there were eight active van pools commuting to the city of Biloxi or to Keesler.^a

The program provides a van for each group of commuters and vRide posts the active vanpools on its searchable website and mobile application. vRide also screens drivers, provides emergency transportation, and monitors maintenance and insurance coverage. Volunteer drivers and passengers share the cost of operating the van and determine the daily schedule and route. Through the program, commuters save travel expenses (such as fuel and vehicle maintenance) and reduce their driving stress.

Van pools have been demonstrated to provide a range of benefits: reducing driving stress and transportation costs for the commuters, reducing regional traffic congestion, and providing environmental benefits. In 2013, Coast Transit Authority's figures show that the average commuter typically spends more than \$200 each month commuting to work. A seven-passenger vanpool is estimated to eliminate 144,360 commuter miles and save 5,724 gallons of fuel, which adds up to about \$17,184. In addition, eligible van pools may take advantage of the U.S. Department of Defense's Transportation Incentive Program, which was established by executive order in 2000 and provides cash reimbursement for commuting expenses to military members and civilian employees who come to work in vehicles of six or more passengers. Van pools also help reduce air and water pollution, because fewer cars on the roads means reduced vehicle emissions and oil runoff into streams and other water systems.

SOURCES: Susan Griggs, "Keesler Commuters Go Green, Save with vRide," Keesler AFB, April 16, 2013.

^a vRide, "Biloxi, MS," undated.

for coordinating an air traffic navigation system at the installation airfield, as well as another LOA for coordinating airspace with the local Federal Aviation Administration Airport Traffic Control Tower.

Railroad partnerships focus on installations and partners sharing the use, management, operations, and maintenance of railroad lines and facilities. They also can include the transfer of railroad assets to the community, such as during a BRAC round. An example occurred at the Letterkenny Army Depot (LEAD) in Pennsylvania from the 1990 BRAC realignment, where the Army transferred part of LEAD to the Letterkenny Industrial Development Authority (LIDA). Part of this MOA included a railroad use agreement that conveyed (through a sale) most of the installation rail lines to LIDA, while the Army retained some rail equipment and facilities, such as three locomotives and an engine house. The partners share use and cost of the rail lines and facilities, and the Army has priority use during mobilization. LIDA provides the maintenance based on LEAD's requirements. The Army pays a track maintenance fee on a per-mile basis to the LIDA for the portion of the LIDA track that the Army uses, "to defray costs incurred as a result of Army requirements to maintain track in readiness-to-serve condition."¹⁶

If the partnership has to do with runways or airports related to military training, it is discussed in the military testing and training mission area instead of here. Some transportation related PuPs are also discussed in the O&M section.

¹⁶ Department of the Army, "Railroad Use Agreement," Exhibit M of the "MOA Between the Department of the Army and Letterkenny Industrial Development Authority for the Transfer of a Portion of Letterkenny Army Depot, Pennsylvania," November 5, 1998, p. 3.

Operations and Maintenance

This functional area includes PuPs that primarily focus on the partner helping to operate and maintain installation facilities and infrastructure. In some cases, such partnerships involve one O&M function; in other, less common cases, it can be that the community takes over running many of the installation basic support operations. Many of the other partnerships in other functional areas may include an O&M component, but they are not the main focus of the PuP. For example, many energy UESCs include O&M components. A PuP example is discussed here if it is the main activity within the partnership. Examples of such partnerships are ones that focus on routine grounds and buildings maintenance. For instance, Eglin AFB has partnered with the State of Florida for state prisoners to provide grounds maintenance at the Air Armament Museum. In 2014, Fort Bragg partnered with the City of Fayetteville to provide custodial services for \$107,000 per year at Fort Bragg's Airborne and Special Operations Museum located in the city. Fort Bragg saves about \$50,000 per year on this partnership, since originally the post was paying around \$157,000 per year.¹⁷ Such partnerships can include a wide range of maintenance functions, such as the arrangement in place at the Presidio of Monterey. The City of Monterey provides a variety of facility maintenance and other public works/base operations support to the installation. Functions performed include street, storm drain, facilities, and tree maintenance; design of civil engineering projects under \$750,000 (lighting, parking lots, energy efficiency projects, etc.); irrigation control; landscaping; traffic engineering; and playground inspections (for more information, see the appendix of this report).

In one partnership, the city actually purchased the installation property from the Air Force, which then leased back the property, and the city provided various O&M and other support services to the installation. This Brooks City Base project partnership was between the Air Force and the City of San Antonio; the city bought Brooks AFB in 2002 (see Box 3.7). Similarly, the Navy sold part of the Philadelphia Naval Shipyard as part of the 1991 BRAC. As part of the BRAC process, the city partnered with the Navy to transfer ownership of excess property to the city's development authority, while retaining select Navy functions on-site and receiving some O&M services from city agencies. The Navy also leases a portion of the property to Aker for shipbuilding as a Government-Owned Contractor Operated (GOCO) facility. These actions facilitated redevelopment of the property, helping to sustain shipbuilding and other employment at the site while leveraging federal, state, and local funds for facility and infrastructure improvements as the Navy retains its Surface Warfare Center, Naval Inactive Ship Maintenance Facility, and Propeller Shop and Foundry.

This area also includes PuPs that are primarily focused on public works types of functions that did not obviously fall in the water, energy, environmental, or other relevant areas. An example is a community using the installation Central Vehicle Wash Facility to clean heavy equipment. Colorado's Department of Transportation (CDOT) partnered with Fort Carson to use the fort's Central Vehicle Wash Facility for cleaning heavy equipment. CDOT does not have comparable facilities in the local area, and reimburses Fort Carson per vehicle washed. Another common partnership regarding infrastructure information sharing is when the community and the installation share geographic information system (GIS) data, as Fort Belvoir does with Fairfax County.

¹⁷ Originally the city estimated these custodial services would cost approximately \$60,000 per year, but when the contract was revised to comply with FAR requirements, the costs rose to \$107,000 per year.

Box 3.7. Brooks City Base Partnership

In 2002, the U.S. Air Force transferred Brooks Air Force Base (AFB) to the City of San Antonio. The Brooks City Base was a demonstration project that was authorized under Sec. 136 of the Military Construction Appropriations Act for FY 2001.^a Prompted by the relatively high operating costs of Brooks AFB and the realization that there were many areas where the City of San Antonio and the Air Force could partner for mutual benefit, the two entities began discussions to consider different approaches for reducing the operating costs of Brooks AFB. The transfer and leaseback approach was selected because the city had both the capacity and the proximity to offer municipal services to Brooks and because the unused space on the installation had a lot of commercial overlap with the area's businesses.

The transfer and leaseback deal at Brooks AFB involved the Air Force conveying more than 1,300 acres and all facilities to the Brooks Development Authority (BDA), established by the City of San Antonio to own and manage the property and its development. Under this partnership, the Air Force leased mission-essential facilities (254 buildings and other facilities and approximately 280 acres of land) from the BDA at \$14 million per year for 99 years. The rent was set at a rate to cover the operating expenses for the buildings leased by the Air Force and discounted to recover the fair market value of the land transferred to the BDA, which was valued at \$64 million.

Utilities were included in the sale to the BDA; the public gas and electric utilities were responsible for operating and upgrading infrastructure, but the Air Force made some health and safety upgrades and added meters before the transfer. Sewer and water infrastructure costs were shared by the Air Force, the BDA, and the city. The city provided law enforcement, fire protection, and emergency medical services, while the BDA was responsible for overseeing the day-to-day operations, janitorial services, refuse collection, and maintenance of the city-base. The rent from the Air Force was used for facility maintenance and improvement. The Air Force also spent approximately \$1 million on security improvements, including building-level enhancements, and some roads were rerouted to avoid housing areas.^b Air Force personnel received priority for housing and other quality-of-life services (although at the time there were several other military installations in the area, including Fort Sam Houston, Lackland AFB, and Randolph AFB, where they could obtain services).

Base operating support cost savings estimates from the Brooks experience vary because they are based on projections of what base operating and support costs would have been in the absence of the transfer. Estimates ranged from 35 to 50 percent of the last full year of Air Force costs before the transition was planned (including civilian personnel and other types of costs). Accounting for transition costs, higher utility rates, and contract management costs, the estimated net cost savings were about 15 percent, or \$8 million to \$10 million per year.^c Other benefits to the Air Force and the community from this partnership included maintaining flexibility for meeting existing and future mission requirements, enhancing mission capabilities, reducing base operating support costs, providing high-quality services and infrastructure, easing job restructuring, maintaining open and timely communication, partnering and leveraging assets to enhance economic value, contributions of Brooks City Base to the community, and creation of good, high-paying jobs.

A few years after the transfer was completed, Brooks AFB closed on September 30, 2011, as part of the 2005 BRAC round, so some of the projected benefits of the deal were never realized. Had the Air Force activities remained on Brooks City Base, in addition to the base operating support cost savings, the Air Force would have avoided the costs of transferring functions to other locations and would have shared in the proceeds of future economic development as negotiated in the transfer and leaseback agreement.

SOURCES: Mark Frye, *The Brooks City-Base Project: Demonstrating a New Way of Operating a Military Installation*, *Economic Development Journal*, Vol. 1, No. 4, Fall 2002; Dave Davis et al., "Looking Back to the Future: Brooks-City Base and the Potential for Community Managed Installations," panel discussion, ADC National Summit, Association of Defense Communities, June 2014; Calibre and BearingPoint, "Analysis of Transfer and Leaseback Prototype Recommendations: A New Approach to Transformation under BRAC," December 2004.

^a Public Law 106-246, Military Construction Appropriations for Fiscal Year 2001, 2000.

^b Davis et al. suggested that although physical security at Brooks City-Base was a major issue during the negotiation period, it was improved after transfer and leaseback and law enforcement jurisdictional changes.

^c Although the net cost savings from this example were small, base operating and support costs account for about half of the II PEG, or \$8.55 billion in FY 2014. Calibre and BearingPoint, "Analysis of Transfer and Leaseback Prototype Recommendations: A New Approach to Transformation under BRAC," December 2004, also suggested that additional savings would have been possible if more overhead functions had been eliminated, certain communications functions had been privatized, additional support agreements had been pursued with other parties for functions the BDA did not provide, and some environmental engineering functions had been realigned.

Maintenance-of-equipment PuPs involving emergency response vehicles are discussed in the section of this chapter covering fire, EMS, and other emergency services.

Partnerships Related to Services for the Military, Their Families, Department of Defense Civilians, and Others

The second category includes those PuPs that fall in the installation functional areas that focus on providing a service to military beneficiaries and people who work on installations, including Servicemen, their families, retirees, DoD civilians, and community members. This category includes mostly partnerships that provide installation Morale, Welfare and Recreation (MWR) functional areas. We have grouped the partnerships into seven function areas that are listed in Table 3.1; the range of partnership types in each area is illustrated with the following discussion and examples.

Children

The children functional area includes PuPs that focus on helping children from both military and nonmilitary families. First, there are installation PuPs that focus on providing child care. These partnerships focus on sharing, operating, and maintaining child care facilities or helping to provide before- and after-school care to military children. For example, the Presidio of Monterey child care facility—the Monterey Road Child Development Center—was upgraded and is maintained and run by the City of Monterey.¹⁸ City employees and military children both attend this center. Another partnership example where the partner provides child care for children of military families, as well as educational help, occurs at the Camp Pendleton Armed Services YMCA. This civilian nongovernmental organization (NGO), located on Camp Pendleton, provides a range of services to military children, including before- and after-school care; preschool classes for parents and children; and free grade-school mentoring and tutoring.

Second, there are PuPs where the partner is providing classes, educational help, activities, and support to military children and their families, such as swim lessons, sports leagues, and 4-H activities. Many installations, such as Fort Carson, have partnerships with the 4-H and Boys and Girls Clubs of America to provide youth activities and development programs on the installation. Fort Carson also has a partnership with the City of Colorado Springs for youth sports leagues to provide opportunities for more children to participate in youth sports. Similarly, Peterson AFB and Fort Carson have partnered together for community youth sports programs. Educational help can include training installation staff that care for and educate children. For example, Goodfellow AFB in Texas has signed an MOU with Howard College for the college to provide training for employees of the child and youth programs at the base.

A third major type of PuP related to children is where military personnel and their families help in local schools from the grade-school to high-school level in special one-day events; long-term relationships; and specialized areas, such as science, technology, engineering and mathematics (STEM) education. Many installations have informal and formal partnerships to help children in the community, and since many military families live off the installation, such activities benefit both military and nonmilitary children and families. For example, Navy installation personnel

¹⁸ This is one of the many partnerships between the city and the Presidio; see the appendix of this report for more information about these partnerships.

Box 3.8. Navy Installations and Kitsap County Staff Partnering for High School Science, Technology, Engineering and Mathematics Event

Volunteers from the Naval Undersea Warfare Center, the Puget Sound Naval Shipyard, and commands within Navy Region Northwest helped facilitate an underwater remotely operated vehicle (ROV) competition for Kitsap-area students in partnership with Kitsap County, Washington, to help with science, technology, engineering and mathematics (STEM) education. This event was held at the Olympic High School Aquatics Facility in Bremerton, Washington, in 2013.

Weeks before the underwater ROV competition, the students formed teams of two and then built the underwater ROVs based on advanced physics and engineering skills they were learning in their science and math classes. At the event, more than 60 of these student teams used their ROVs to maneuver around and through polyvinyl chloride (PVC) pipe structures. Then they used the ROVs to pick up and deposit metal washers into a bucket using magnets attached to the ROVs.

The pipe structures had been set up by volunteer Navy divers. During the competition, the divers were also in the pool, assisting students in retrieving their ROVs, and giving them advice when needed.

SOURCE: Christopher Brown, "Northwest Navy, Kitsap County Partner for STEM Event," *America's Navy*, June 2, 2013.

and Kitsap County staff in Washington partnered in an underwater remotely operated vehicle competition at a local high school. Volunteer divers from the Naval Undersea Warfare Center, Puget Sound Naval Shipyard, and commands within Navy Region Northwest helped set up the course and then helped students during the underwater event (see Box 3.8). Such partnerships also involve local children using installation facilities for youth and educational activities. For instance, Girl and Boy Scouts troops use the installation youth center at Naval Support Activity Annapolis. Installation usage by children's groups also includes the natural environment, as at Vandenberg AFB in California. Vandenberg AFB has a partnership with the USFWS and the Channel Islands National Marine Sanctuary to provide local high-school students an opportunity to study marine biology along Vandenberg's coastline. The students learn how to collect data in a marine environment, and the data they collect are used by Vandenberg's Natural Resources Team to help with the base's coastal environmental management.¹⁹

Lastly, other children-related PuPs help installation staff deal with military children's unique situations, such as helping children who have a deployed parent. For example, many Army installations have Army School Liaison Officers who work in partnership with local schools to ensure military youth have positive transitions into and out of schools during moves from one installation to another and to meet the unique needs of military students. Similarly, the School Liaison Officer at Naval Support Activity Annapolis works with the Anne Arundel County Public School system regarding military children's needs and activities.

Recreation

The recreation installation PuPs focus on the shared use of recreation facilities, most commonly ball fields, parks, and pools. Recreation centers and golf courses are also shared. Such partnerships may involve equal exchanges between the partners, servicemen and their families using an off-installation recreation facility, or the community using an on-installation facility. Payments or discounted fees for use may or may not be involved. We provide an example

¹⁹ OSD, "FY 2011 Secretary of Defense Environmental Awards: Vandenberg AFB Natural Resources Team/Natural Resources Conservation—Team," 2011.

to illustrate each of these three types of partnerships. First, an example of co-using recreation facilities occurs at the Naval Support Activity Annapolis, where the Naval Support Activity Annapolis MWR and the City of Annapolis Recreation and Parks Department partnered for the mutual use of ball fields. In this example, the Navy installation and the community share use and maintenance responsibilities of their ball fields without any funds being involved. The second example (where military personnel and their families use community recreation facilities), is exemplified by Fort Meade's partnering with Anne Arundel County to use county golf courses. Fort Meade military, their families, and retirees play golf at multiple courses in the county at discounted rates, and the installation closed its golf course because it needed the property for other purposes. The third example (where the community is using installation facilities) is demonstrated by the University of South Carolina using the Fort Jackson parade field for cross-country track meets.

Recreation PuPs also include ones where the community pays or helps pay for construction of new installation recreation facilities, like a recreation center, that they may or may not use. At Maxwell AFB in Alabama, for example, the community is funding construction of a recreational park on base for servicemen and their families (see Box 3.9). In another example, the Minnesota Army National Guard (MNARNG) has partnered with the City of Inver Grove Heights to build, operate, and share use of the Minnesota National Guard Armory and the connecting Veterans Memorial Community Center, home of the Grove Aquatic and Fitness Center. This joint facility includes recreation facilities, such as a water park, a fitness center, a gym, and an indoor ice-skating rink.

Installations and communities also partner in a variety of other ways related to recreation, from communities using installation land for public hiking trails, hunting, and bird

Box 3.9. Community Partnership to Construct the River Region Freedom Park at Maxwell Air Force Base

The Montgomery Area Chamber of Commerce Foundation is leading a communitywide effort to build the River Region Freedom Park on Maxwell Air Force Base in Alabama for military families—partly to strengthen local support for the base and partly to help protect its future. The new park, River Region Freedom Park, sits on 3.5 acres within the housing area just inside the main gate and consists of three playgrounds, picnic and barbecue facilities, restrooms, pavilions, a soccer field, a walking track, a rope climb, swings, and exercise stations for adults.

The community funding consisted of donations from public and private entities. The estimated cost of the park, which will be used by airmen and their families, is more than \$500,000; \$100,000 was donated by the Chamber Foundation, and another \$100,000 was donated by Wright Flyers and the Air University Foundation. Other groups are donating time and technical expertise. Both the City of Montgomery and Montgomery County provided project management and support. The Montgomery Home Builders Association built restroom facilities, which involved donating material, services, and labor valued at \$60,000. Initially conceived as a much smaller concept for a single playground valued at \$35,000, local contributions blossomed and supported a much larger and more extensive park to serve military families when federal military construction funds were not available.

Both the community and the wing commander view the River Region Freedom Park as a first step in many other partnership opportunities to cost-share services, such as the possibility of sharing the City of Montgomery's new municipal solid waste recycling center that is near completion.

SOURCES: Rebecca Burylo, "Freedom Park Dedicated to Families at Maxwell," *Montgomery Advertiser*, May 28, 2014; Brad Harper, "River Region Unites to Fund \$400K Park at Maxwell," *Montgomery Advertiser*, December 19, 2013; Donovan Jackson, "Base Plans Productive Year," 2nd Air Base Wing Public Affairs, February 7, 2014; Montgomery Area Chamber of Commerce, "Giving to River Region Freedom Park," flier, undated.

watching²⁰ to having joint recreational events and helping maintain parks and natural areas together. For example, in 2009, the City of Sierra Vista and Fort Huachuca signed a partnership agreement to re-establish the Perimeter Trail along the post's eastern boundary for hiking. The trail had been opened in 1999, but was closed after the September 11 attacks.²¹ Avon Park Air Force Range partnered with the state of Florida to become a state wildlife management area. This Air Force Range is well known as a public hunting, camping, hiking, and bird-watching destination. Another interesting recreation-related partnership example occurs at Vandenberg AFB along the California coast. Vandenberg AFB partnered with Mission La Purisima State Park, the staff of which helped manage overgrown tule reed and willow stands along the shores of the base's Pine Lakes recreation area. In return, the park "received hard-to-find construction materials for their volunteer-organized project to construct a Chumash, Native American communal-sized tule hut using all traditional materials and methods."²² This partnership also demonstrates a range of partnership benefits for the base, park, and community—including manpower savings and recreational, environmental, cultural resource, and educational benefits.

Adult Education

Here, we discuss college and other types of adult education and technical training installation partnerships.²³ College PuPs occur when university partners help military personnel and their families earn college degrees, often by providing classes on the installation. We present two different installation examples: Fort Drum and Grand Forks AFB. Fort Drum has a partnership with Jefferson Community College for college staff to provide college classes, academic counseling, tutoring, advertisements, and college administration on post for soldiers and their families. Fort Drum has similar partnership agreements with four other colleges: SUNY Empire State College, Columbia College of Missouri, SUNY Potsdam, and University of Maryland. Grand Forks AFB has a partnership agreement with the University of Mary to provide a master's of business administration and master's of science in strategic leadership degree programs on base. Both on-site accelerated evening and online classes are provided to airmen and their families.

Adult education PuPs also include partners that help military members and their families with learning how to speak English as a second language (ESL) or how to run a small business, and that help service members learn job skills for transitioning out of the military. For instance, Fort Jackson has an MOA with the University of South Carolina Small Business Development Center, under which the Center provides quarterly small-business training for military personnel and their families. Fort Carson has a public-private partnership with the United Association of Plumbers, Pipefitters, Sprinklerfitters and HVAC Service Technicians to provide welding apprenticeship training for transitioning soldiers and subsequent job placement. U.S. veterans and active-duty military receive skills training and jobs in the

²⁰ Some military installations are so well known for bird watching that the National Wildlife Federation did a story on them. See Chris Eberly, "Ten Great Birding Destinations: Some of the Best Birding Locations Are on Military Bases," National Wildlife Federation, October 1, 2005.

²¹ Linda Ory, "City Seeks to Link Park to Mountains," *Sierra Vista Herald*, May 29, 2009.

²² OSD, 2011.

²³ Note that partnerships related to children's education—i.e., from birth through high school—are in the children functional area.

piping trades.²⁴ Similarly, Fort Hood has a partnership with General Motors LLC (GM) and Raytheon Professional Services LLC for an on-post automotive job training called “Shifting Gears: Automotive Technician Training Program for Transitioning Service Members.”²⁵

Adult education PuPs also include partners helping to provide education and training for installation staff, such as DoD civilians benefiting from community leadership training. For example, through a partnership between Joint Base Myer-Henderson Hall and Arlington County, Virginia, base civilian staff have attended the community training class called “Leadership Arlington.”

This area also includes partnerships that provide educational benefits to community members and the installation, such as shared college facilities and STEM activities in the community. For example, Little Rock AFB and the City of Jacksonville, Arkansas, are sharing the expense of building an education center for colleges to offer undergraduate and graduate degrees to military personnel, their families, and the community. The City of Jacksonville combined \$5 million from local taxes with \$10 million from the Air Force to build the Jacksonville–Little Rock AFB University Center just off the base with six different colleges at it.²⁶ Installations with research missions often partner with universities to help advance STEM education, increase the pool of highly qualified engineers and scientists that are available as potential installation employees, and help with their research missions. For instance, the Naval Surface Warfare Center, Indian Head Division (NSWC IHD) and Naval Explosive Ordnance Disposal Technology Division signed an Educational Partnership Agreement (EPA) with the University of Puerto Rico Mayaguez. Through this agreement, the Navy assists students with academic and career advice; the students help with Navy research projects and develop STEM skills, increasing the pool of possible future Navy scientists and engineers. Similarly, Air Force Research Lab, Directed Energy and Space Vehicles Directorates at Kirtland AFB has an EPA with the University of New Mexico to improve career opportunities for students there, as well as advance technological development and expand STEM education in New Mexico. As part of this agreement, university faculty and students also help on Air Force lab research projects.

The adult education PuP area also includes internships for college students on installations, which help students gain practical on-the-job training and college credit; the students, in turn, provide a service to the installation. Such internships occur in areas such as research and development (R&D), medical fields, helping in installation libraries, and helping with athletic training. For example, Hill AFB has partnered with Weber State University, Salt Lake Community College, and Emporia State University to have students work as interns at the base library, which helps enhance library programs. In return, the college students gain practical work experience and college credit (see Box 3.10). Other internship examples are

²⁴ For more information, see “The UA’s Veterans in Piping (VIP) Welding Program Graduates First Class from Fort Carson,” March 19, 2014.

²⁵ For more information, see Fort Hood, “MOA Between USAG Fort Hood and GM and RPS for Establishment of Parameters and Cooperative Support for the Shifting Gears: Automotive Technician Training Program,” July 2014.

²⁶ Resident universities include Arkansas State University-Beebe; Park University; University of Arkansas-Fayetteville; Southern Illinois University; Embry-Riddle Aeronautical University; and Webster University. For more information, see Rochelle Sollars, “Built on Excellence: University Center Offers Lesson in Community Support,” *Little Rock AFB*, February 1, 2011.

Box 3.10. Hill Air Force Base Library Internship Partnerships

Hill Air Force Base (AFB) has partnered with colleges to enhance on-base library services while giving college library students on-the-job experience. Hill AFB has the same internship partnership with three different colleges: Weber State University, Salt Lake Community College, and Emporia State University. In each partnership arrangement, students receive work-study opportunities in the base library in exchange for academic credit. Known as the Promoting Opportunity for Work Experience Research (POWER) program, library science and education students support the base library's quality-of-life and literacy programs. The student interns may help with the summer reading program, preschool literacy and reading hour, youth exploration, adult computer knowledge, and online resources development activities. Through POWER, interns provide technical assistance, training, and program support. Memoranda of agreement (MOAs) were signed with each university to establish the program.

The Air Force benefits from the free staff augmentation and technical assistance provided by leveraging the skills of the interns to enhance library programs. The universities and students also benefit because students gain relevant work experience and potential academic credit. The authority used for these MOAs is DoD Instruction 1100.2, Voluntary Services in the Department of Defense.

SOURCES: Memoranda of agreements between Hill AFB and Weber State University, Salt Lake Community College, and Emporia State University, May 2013.

discussed in sections of this chapter covering other functional areas, such as R&D interns in the Other Military Mission area.

Universities and colleges also use installations as educational labs to conduct environmental R&D, species monitoring, and similar activities that help environmental science/education, such as scientists studying ruffed grouse at Fort Drum (as was described in the section on the environmental functional area). Similarly, universities and colleges also use installations to provide students with hands-on archeological and historical research opportunities. Fort Drum has partnered with St. Lawrence University and Syracuse University for master's and doctoral students to analyze and help preserve the fort's large 19th- and early 20th-century archaeological farmstead collection.²⁷

Libraries

This section provides an overview of the different installation PuPs that involve library functions. Library partnerships could have been grouped under other support for military personnel and their families, but we separated libraries out as a separate area for two reasons: first, many installations are exploring library partnerships; and second, we were assessing this functional area in greater depth to understand the different alternatives (including non-PuPs) regarding how to provide library functions, which is discussed in Chapter Six.

Library partnerships are mostly with local governments and universities. They tend to focus on agreements where the community helps the installation library improve services to military personnel and their families, saves the installation money, or both. A common partnership type allows military members and their families who live on the installation to use community libraries for free, such as at Fort Leavenworth, Kansas, where installation residents are allowed to use City of Leavenworth library services at no cost to the Army. These partnerships can also include increasing services for nonmilitary residents of the community, as well as military patrons. For example, Robins AFB in Georgia has an agreement for interlibrary loan services with the Houston County Library that allow patrons to borrow

²⁷ For more information, see DoD Legacy Program, "U.S. DoD Best Practices in Cultural Resources Management," DoD Legacy Project No. 07-365, November 2008, page 41.

books from both the base library and Houston County. This partnership also improves airmen's and their families' access to online resources and provides extra access for Houston County library patrons. These partnerships save installations money by taking advantage of economy-of-scale sharing opportunities and of shared physical infrastructure or electronic resources. The former occurs when an installation provides a small amount of funding to participate in a regional library consortium and leverages community funds. The latter occurs in situations such as that at Fort Belvoir, where Fairfax County has placed several of its computer kiosks in the installation library so Belvoir patrons can have access to county library electronic resources. Another type of partnership that improves installation library services involves university library students working as interns at the installation library, as was discussed in the Hill AFB example (see Box 3.10).

Another library partnership type occurs when the installation closes its library and partners with the community for military library needs. For instance, Fort Huachuca signed an agreement with the City of Sierra Vista for the city's library to provide services for all military personnel and their families (including those who live on post); the post provides yearly funding to the city library to purchase military materials and the installation closed its main library (see Box 3.11).

Box 3.11. Fort Huachuca and the Sierra Vista Library Partnership

Fort Huachuca in Arizona entered into a partnership for library services with the City of Sierra Vista in March 2007. It was a pilot project authorized under the National Defense Authorization Act for FY 2005 Sec. 325 (five services were authorized for partnership opportunities: refuse collection and disposal, recreation, library services, facility maintenance and repair, and utilities).

In the mid-2000s, the Fort Huachuca library was substandard, largely because of underfunding. It required a major upgrade, estimated at \$400,000. A large proportion of soldiers and families lived off-post, the on-post library was used primarily for computer access by trainees there, and only 17 percent of authorized users were registered; as a result, the library became a candidate for a partnership. The city estimated that its cost to operate the on-post library as a branch location would exceed the budget being spent on the library. On the flip side, Sierra Vista had a high-quality library and was relatively close to military housing areas. As a result of this partnership, Fort Huachuca closed the main library on post (a military intelligence library remains open), distributed additional computers throughout the post, and transferred the three library staff members to other jobs. A memorandum of understanding was signed with the city providing for payment from the Army to procure additional library materials for soldiers and their families.

The outcomes of this partnership have not been formally assessed. However, Fort Huachuca has clearly saved money in operating expenses and the cost required to bring the library up to standards. Savings estimates vary but are in the range of more than \$300,000 per year, for more than \$2.2 million total savings as of spring 2014. Soldiers and families have access to a high-quality library whose services include a library café, periodic lectures, and movies. The on-post military intelligence library is still available to trainees on-post; however, its primary purpose is not to provide general audience resources and family programs.

SOURCES: Jonathan Hunter, "Garrison Commander Fort Huachuca, Library Partnership: Why This Will Work," *Sierra Vista Herald*, April 17, 2007; American Library Association, "Stories About Library Funding: Fort Huachuca," April 13, 2007; Sierra Vista, "About the Library," 2014; and Sierra Vista, "Welcome to the Sierra Vista Public Library," brochure, undated.

Family Advocacy/Social Services

We found a range of social service prevention, treatment, and response partnerships between the installation and the community, including with police, social services, hospitals, and NGO shelter organizations. Many of these partnerships focus on cooperation in dealing with military children and spouse abuse cases; child neglect; domestic violence; and sexual assault victims. Installations tend to rely on communities for emergency shelter service, foster care, hot lines, and other victim services. They also share information and work together in the training of staff, on outreach to help prevent these problems, to identify and report about them, and to provide information where victims can receive help. For discussion purposes, we group these partnerships into four issue categories: sexual assaults, child abuse and neglect, domestic violence, and other issues.

Installations have partnerships to help prevent sexual assault, to train professional caregivers, and to test for and provide treatment for victims of sexual assault. For example, Aberdeen Proving Ground (APG) in Maryland has partnered with the Cecil County Core Service Agency and the Harford County Office on Mental Health to help implement the installation's Sexual Harassment/Assault Response and Prevention (SHARP) program (an Army-wide effort to prevent sexual harassment and sexual assaults). The partners provide a trained victim advocate to each sexual assault victim to offer informed support and guidance and classes about the prevention of sexual assault.²⁸ These partnerships also may be with community hospitals, because hospitals could treat the victims. For instance, at NAS Patuxent River in Maryland, the Pax River Health Clinic and St. Mary's Hospital have signed an agreement to establish policies and procedures for the care of active duty military and reservists on duty who are the victims of an alleged sexual assault and seeking treatment at St. Mary's Hospital.²⁹ These partnerships also focus on providing emergency safe shelter for the sexual assault victims. For example, Fort Benning has a partnership with the Columbus Alliance for Battered Women, Inc., and the Crisis Center of Russell County to provide emergency housing for military spouses, their children, and female soldiers who are victims of abuse/sexual assault, as well as other purposes (see Box 3.12).

Partnerships that address the problems of child abuse and neglect focus on education, cooperation in reporting, protection and custody, and trying to prevent child abuse and neglect. For example, Fort Huachuca has partnered with the Committee for Prevention of Child Abuse of Sierra Vista on educational outreach to prevent child abuse. Joint activities include an annual Child Abuse Prevention Conference, annual back-to-school fair, and a Parent University. Often, an installation partners with a law enforcement agency regarding cooperation in response, as well as with a social service agency regarding protection and custody services. Fort Jackson Army Community Service (ACS) has partnered with the Lexington Sheriff Office in reporting and responding to incidents of child (and spouse) abuse cases involving military personnel and their families, and with the South Carolina Department of Social Services for the protection and custody of abused and neglected children of military families. Box 3.12 provides similar partnership examples at Fort Benning. Such partnerships also try to address other types of violence against children and abuse of other people, such as elders. For example, Fort Detrick of Maryland has partnered with Frederick Memorial

²⁸ Maryland Department of Business and Economic Development, "Maryland Military Installation Partnering Reference," April 2014, p. 16.

²⁹ Maryland Department of Business and Economic Development, 2014, p. 48.

Hospital, Heartly House, local law enforcement, and the Child Advocacy Center of Frederick to provide medical care to victims of different types of abuse, sexual assault and violence issues. In this partnership, the

County provides Sexual Assault Nurse Examiners (SANEs), nurses specially trained to provide comprehensive care to adults, adolescents and children who have been impacted by sexual assault, intimate partner violence, child abuse, elder abuse, human trafficking, and non-intentional trauma. SANEs conduct victim interviews and collect forensic evidence that meets military and State legal requirements.³⁰

Partnerships that address domestic violence focus on education, providing emergency safe housing, providing victim services, exchanging information, coordination, and/or trying to prevent domestic violence. For instance, Picatinny Arsenal has partnered with the New Jersey Battered Women's Service, Inc., on domestic violence victim services. This partner can provide a range of services, including counseling; a safe house; transitional living; children's services; life skills education; vocational counseling; and batterers' intervention. Military medical organizations are often involved in such partnerships. For example, Fort Sill's Reynolds Army Community Hospital in Oklahoma has a partnership with Lawton Police Department and the Comanche County District Attorney to exchange information regarding domestic violence cases involving military personal and family members. A multi-partner educational partnership for military and civilian professionals regarding combating and preventing domestic violence (and child abuse) occurs at Fort Benning (see Box 3.12).

Other partnerships involving social service provisions include providing the military with mediation services, psychological counseling services, and a Women, Infants, and Children (WIC) program, which is a supplemental nutrition program for low-income pregnant and recently pregnant women, those who have a new baby, and for infants and children ages 1 to 5. For example, Moncrief Army Community Hospital at Fort Jackson has a partnership with the South Carolina Department of Health and Environmental Control to establish guidelines to better assess, provide, and document services to eligible military personnel and their families through the state WIC program. Although not as common, such partnerships can also include the installation helping the community with social services, such as at Fort Belvoir. This fort has an unusual partnership with Fairfax County in which Belvoir provides space for and helps maintain the Eleanor U. Kennedy Shelter for the homeless on the installation, which the county pays an NGO to operate. Another slightly more common social service partnership type is where an installation donates food to a community food bank that helps feed the homeless and other people with food insecurity problems. For example, the Tinker AFB Commissary has an agreement with the Regional Food Bank of Oklahoma that allows the food bank to pick up outdated distressed merchandise at Tinker and three other Oklahoma installations. During the first week of this agreement implementation, the food bank received "2,757 lbs. of assorted products, which equated to an estimated 2,298 equivalent meals."³¹

³⁰ Maryland Department of Business and Economic Development, 2014, p. 30.

³¹ USAF, 2014b.

Box 3.12. Fort Benning Partnerships to Prevent, Respond to, and Treat Cases of Child Abuse, Domestic Violence, and Sexual Assault

Fort Benning in Georgia has partnered with a range of community social service and law enforcement organizations to work together to prevent, identify, report, and treat child and spouse abuse, domestic violence, and sexual assault. We briefly describe five different partnership examples here.

Fort Benning has entered into two memoranda of understanding (MOUs) with two separate community nongovernmental organizations to help military spouses, their children, and female soldiers who are victims of domestic abuse, sexual assault, or both. These MOUs are between the Army Community Service Family Advocacy Program (FAP) at Fort Benning and (1) the Columbus Alliance for Battered Women, Inc., and (2) the Crisis Center of Russell County. These agreements focus on information-sharing, coordination of services, training on each other's policies and procedures (including military requirements), educational outreach to the local community, victim advocacy, and emergency housing. The community organizations provide and coordinate emergency safe housing and support services for military victims. Should a soldier or family member seek services at the shelters, the MOUs ensure that each organization is cross-trained in the others' procedures and capabilities, and that shelter staff can counsel the victims regarding Fort Benning services. The partnerships also enhance the educational outreach and training of both organizations regarding the dynamics of domestic violence. The shelters also report statistics on domestic violence in military families to the Fort Benning FAP. It is estimated that these agreements save the post about \$265,000 per year because of the additional training staff that would need to be hired for the FAP.

Fort Benning has entered into a memorandum of agreement with the Georgia Department of Human Resources acting by and through the Muscogee services, the Muscogee and Chattahoochee County Departments of Children Services, and the Muscogee County Courts regarding incidents that involve the potential abuse and neglect of children of military families. The partners agree to coordinate on the reporting and investigation of allegations of child abuse and neglect and for the adoption of treatment alternatives, including foster care services. Given the State of Georgia and the Army authorities regarding protection of children, the agreement outlines specific roles and responsibilities of county and installation organizations regarding reporting and notification requirements, information intake procedures, court representation, treatment programs, communications, and records access. Without this agreement, Fort Benning would need additional social workers and other personnel to investigate all the cases of alleged child abuse and neglect and to run a foster care program. It is estimated to provide cost avoidance of \$300,000–400,000 a year.

Fort Benning has also entered into an MOA with the Columbus Police Department to cooperate and collaborate on child or spouse abuse incidents involving active-duty military personnel or their family members who reside off-post. This agreement is between Fort Benning's Military Police, Provost Marshal, and FAP organizations and the City of Columbus Police Department. It ensures that the local police officers inform and work with the appropriate Fort Benning agencies when they respond to and report an incident that involves military members or their families.

Fort Benning also has a partnership focusing on advocacy for military spouses and children who are victims of domestic violence in the Muscogee County jurisdiction. This MOA is between the Solicitor General's Office of Muscogee County; the Fort Benning FAP, the Fort Benning Staff Judge Advocate Office; Social Work Service, Martin Army Community Hospital, and the Fort Benning Provost Marshal Office. It specifies the responsibilities and procedures of each organization in handling victim advocate cases for all military spouses and children who are victims of domestic violence, whether living on or off the installation.

Fort Benning also partners with community organizations in conferences to help educate and train professionals in addressing and preventing child abuse and domestic violence. For instance, Fort Benning FAP has partnered with the Pastoral Institute, Muscogee County Schools, the Columbus Alliance for Battered Women Shelter, the Solicitor General's Office of Muscogee County, the Columbus Gang Task Force, and other organizations in a Pastoral Institute Conference that brings together military and civilian professionals and leaders to combat and prevent domestic violence. This conference focuses on family violence and its impact on violence in the schools, the streets, and the workplace; and on conflict resolution, education about nonviolent forms of communication, strategies for helping those who are violent, and other relevant topics. All professionals receive continuing education units that meet their professional requirements. This conference has trained 75–100 professionals at Fort Benning and has been estimated to save the Army more than \$100,000 on training fees. State and local agency partners also save thousands of dollars in training costs.

Box 3.12.—Continued

SOURCES: Fort Benning, "FAP Partnerships—Assessment Sheet," undated-a; Fort Benning, "Memorandum of Understanding Between the Army Community Service (ACS) Family Advocacy Program (FAP) Fort Benning, Georgia and the Columbus Alliance for Battered Women, Inc.," undated-b; Fort Benning, "Memorandum of Understanding Between the Army Community Service (ACS) Family Advocacy Program (FAP) Fort Benning, Georgia, and Crisis Center of Russell County," undated-c; Fort Benning, "Memoranda of Agreement Between Fort Benning, the Georgia Department of Human Resources, Muscogee County and Chattahoochee County," undated-d; Fort Benning, "Memoranda of Agreement Between the Fort Benning Military Police/Provost Marshal and Fort Benning FAP and the Columbus Police Department," undated-e; Fort Benning, "Memorandum of Agreement Between the Solicitor General's Office of Muscogee County and the Fort Benning Family Advocacy Program and the Fort Benning Staff Judge Advocate Office and Social Work Service, Martin Army Community Hospital and the Fort Benning Provost Marshal Office," undated-f.

Medical and Health Issues

Medical and health-related installation PuPs tend to focus on enhancing medical treatment, education, training for the installation and community, and improving emergency medical preparedness and response within a region.

Medical treatment partnerships include ones where the partner treats military personnel and their families on the installation, where military beneficiaries receive medical treatment in the civilian hospitals by civilians or military doctors, and where civilians receive treatment in military medical facilities. An example occurs at the Eisenhower Army Medical Center (AMC) at Fort Gordon. Eisenhower AMC has partnered with the Medical College of Georgia and Augusta Veterans Affairs (VA) Medical Center in medical training programs and patient care. For instance, military dependents in need of obstetrics services have used Trinity Hospital of Augusta, while some soldiers have used the spinal-cord rehabilitation unit and an active-duty rehabilitation unit at the Augusta VA Medical Center. In return, some civilian, nonmilitary dependent patients have gone to Eisenhower AMC for use of its hyperbaric chamber. Such partnerships also include mental health services, such as NAS Patuxent River partnering with Walden Sierra, a local non-profit counseling service, for Walden Sierra to provide mental health counseling services to base personnel. Another medical treatment partnership type involves military personnel treating military patients in community hospitals, such as Fort Drum doctors performing surgery in a community hospital. In fact, Fort Drum has one of the most extensive medical community partnerships, which relies on the surrounding community for inpatient medical facilities and specialty care in lieu of building an Army hospital on post (see Box 3.13).

The VA and DoD have special partnership arrangements for sharing medical facilities and services. In 1982, Congress passed the Sharing Act, which authorizes local VA and installation medical treatment facilities to partner in sharing agreements to buy, sell, and exchange medical and support services, such as the local VA using the Sheppard AFB Medical Center in Wichita Falls, Texas, and the Naval Hospital Pensacola in Pensacola, Florida. "VA and DoD are realizing benefits from sharing activities, specifically better facility utilization, greater access to care, and reduced federal costs."³²

Often, the partnerships where the partner treats military personnel and their families involve university staff or students receiving training or conducting medical science research.

³² GAO, "VA and DoD Health Care: Resource Sharing at Selected Sites," GAO-04-792, July 2004.

Box 3.13. Fort Drum Military-Civilian Regional Healthcare Partnership

Beginning in 1985, Fort Drum has partnered with surrounding communities within a 40-mile radius in upstate New York in the North Country Healthcare System, a military-civilian regional health care partnership. The fort has integrated installation medical services into the community system. Back in the 1980s when Fort Drum was expanding, Army leadership decided to pursue a community partnership approach instead of building a hospital on post. Today, Fort Drum relies on the surrounding community for inpatient medical facilities and most specialty care. Soldiers and families can use five civilian hospitals within a 40-mile radius of the post. Fort Drum's medical department also uses community medical facilities, such as post doctors performing surgery within a civilian hospital.

Created in 2006, the Fort Drum Regional Health Planning Organization (FDRHPO) is a key part of this health care system integration. The FDRHPO's mission is to analyze the health care system for the soldiers, their families, and the surrounding civilian community; identify gaps, then leverage additional medical resources.

Over time and with the help of the FDRHPO, the community has made commitments and investments to improve the health care system that have benefited both the military and the community. Such commitments have focused on developing and recruiting qualified medical professionals, upgrading facilities, expanding behavioral health resources, enhancing the emergency medical service system, and technology improvements. We provide some examples. The community has a long-term recruitment project of almost \$1 million to increase the number of medical and behavioral health care professionals within the region. The FDRHPO encourages local students to pursue health care careers and supports initiatives that bring additional or enhanced health care training to the region to meet current and future health care workforce needs. For instance, the FDRHPO has collaborated with Jefferson Community College to expand nursing education in the region. It helped the college obtain a U.S. Department of Labor grant to fund the creation of a part-time night and weekend option for students to pursue a nursing degree, enabling more working adults to enter the health care field. More than \$84 million has been spent on hospital upgrades. Four new behavioral health clinics have been created. Other behavioral health resources have been expanded with the help of some New York state funds. The number of TRICARE-credentialed behavioral health providers in the region has increased from 39 to 109. Technology improvements have included implementing a fiber infrastructure at 30 health care sites and creating a communitywide electronic health records system. The FDRHPO has also obtained health care information technology (HIT) grants and has partnered with Jefferson College to recruit, educate, and retain certified HIT specialists in the region.

This regional integrated military-civilian health care system has numerous benefits for the Army and the community. This partnership has helped to improve military medical care at Fort Drum at a lower cost to the Army. It provides a more convenient, timely, and integrated health care system for soldiers and their families. Other advantages of this collaborative regional approach include integrating military and civilian assets, allowing the installation to avoid building as many medical facilities, providing regional economy-of-scale cost and service benefits, and leveraging community, state, and federal resources. The partnership has also improved the health care system for the community. In fact, this partnership has created a more comprehensive and higher quality health care system than would normally be available in such a small, rural community. It has also created more than 4,000 jobs in the region and has had a \$373 million annual impact within the local economy.

SOURCES: FDRHPO, "Commitment in Action," 2012a; FDRHPO, "Community Connection," 2012b; State University of New York—Jefferson, "Fort Drum Regional Health Planning Organization to be awarded Jefferson Citation," undated; and Patricia A. Ritchie, "Fort Drum Vital to Economy," *Watertown Daily Times*, August 30, 2014.

University medical and health students helping with research or treatment on an installation benefits installation research and servicemen, as well as the students' education. For instance, Valdosta State University students work with airmen on Moody AFB in Georgia to assess and treat injuries and develop fitness programs. This partnership provides athletic treatment for airmen and significant cost avoidance for the Air Force and on-the-job work training for athletic-training students.³³ At Fort Benning, Auburn University researchers have partnered with the installation to better treat and research posttraumatic stress disorder (PTSD) in soldiers.

³³ This is a major cost avoidance for the Air Force because airmen no longer have to be sent to facilities out of state for treatment.

Medical and health partnerships also focus on medical research, such as at APG. U.S. Army Public Health Command (USAPHC) at APG has an agreement to employ Oak Ridge Institute for Science and Education interns who are college and postdoctoral students to conduct military health science research, such as suicide epidemiology research in the Behavioral and Social Health Outcomes Program.

Medical education and training partnerships often focus on military medical staff being trained in the community through individual classes at hospitals, specialized training programs, and in trauma centers. We provide an example of each of these types of training partnerships. First, Ellsworth AFB Air Force medical personnel are taking classes at Rapid City Regional Health Hospital because of a partnership between the hospital and base. Second, Luke AFB in Arizona has partnered with Scottsdale Healthcare to provide training programs for USAF medical personnel in their civilian hospitals. The partner provides clinical rotation for Air Force Reserve or Air National Guard enlisted medical technicians, along with a USAF nurse training program. Third, in a partnership between Stroger Hospital (the Cook County-run public hospital), and the military's Lovell Federal Health Care Center (FHCC) in North Chicago,³⁴ Navy doctors, nurses, and medics train and work in a civilian hospital emergency room, where they routinely treat patients with gunshot wounds.

Some training PuPs focus on improving certain medical capabilities within the region, such as training more psychological professionals to be able to provide mental health services to military personnel and their families. William Beaumont Army Medical Center (WBAMC) at Fort Bliss, University of Texas at El Paso, and Texas Tech University Health Sciences Center at El Paso have partnered in an El Paso Psychology Internship Consortium to train psychologists, with the goal of improving access to mental health services in the region. This partnership provides internships for doctoral psychology students, who conduct some outpatient work at WBAMC that involves treating PTSD, substance abuse treatment, traumatic brain injury, and depression.

Other health-related installation partnerships have to do with healthy living, nutrition, and vaccines. For example, Fort Meade has partnered with Wholesome Waves for this NGO to facilitate a farmers' market on the installation in support of the Healthy Base Initiative.³⁵ Similarly, at Dover AFB, the Kent County Community Garden Collaborative, the Delaware State University College of Agriculture and Related Sciences, Delaware Health and Social Services, the housing privatization partner, and other partners have united to create a community garden on base near family housing that will start yielding organic produce in spring 2016.³⁶ Joint Base Myer-Henderson Hall has a partnership with Arlington County in which the county provides antibiotics and vaccines to the installation.

³⁴ Lovell FHCC is a federal agency partnership between the U.S. Department of Veterans Affairs and DoD that integrates all medical care into a fully integrated federal health care facility with a single combined VA and Navy mission. Lovell FHCC combines the former North Chicago VA Medical Center and the former Naval Health Clinic Great Lakes, a part of Naval Station Great Lakes. For more information, see the Federal Health Care Center web page.

³⁵ "The Fort Meade Farmers' Market is one of 28 initiatives in support of the Healthy Base Initiative. HBI is a demonstration project within Operation Live Well, focusing on 14 pilot installations throughout the DoD to examine and evaluate specific initiatives and their ability to improve nutritional choices, increase physical activity, reduce obesity and decrease tobacco use." Raul Schuett, "Farmers' Market to Begin on Fort Meade Market to Be Held Every Wednesday Beginning May 21," *Soundoff*, May 8, 2014.

³⁶ For more information, see Matt Borron, "Housing Partner, Local Agencies Tend Organic Community Garden at Dover AFB," *ADC 2015 National Summit*, Washington, D.C.: Association of Defense Communities, November 4, 2015.

Medical and health partnerships related to emergencies focus on sharing medical vehicles and resources, such as ambulances, during emergencies and coordinating health monitoring and hospital assets during a large-scale incident. For example, one Army installation's hospital has an MOA with state, local, and federal public health organizations to coordinate activities related to the continuous surveillance for early detection and identification of the release of selected aerosolized, pathogenic biological agents. MAAs for EMS and other medical emergency PuPs are discussed in the section of this chapter focusing on fire, EMS, and other emergency services. For example, the Navy's involvement in the BHEPP was discussed there (see Box 3.1).

Other Support for Military and Their Families

This area includes installation PuPs that focus on helping military personnel and their families and that do not already fall in one of the areas already discussed (children, recreation, adult education, etc.). Such PuPs focus on helping with taxes, religious services, servicemen transitions into the community and out of military service, veterinary services, leisure activities, immigration and naturalization services, military housing, and other topics. We provide a range of examples to illustrate this area.

Installations have partnerships that help servicemen and servicewomen and their families fill out and submit their income taxes. For instance, the Howard County Mission Growth/BRAC Office helped facilitate the operation of the Fort Meade Tax Assistance Center and its staff of volunteers. The center provides free income tax assistance, preparation, and filing for all active-duty personnel, retirees, and family members in the Fort Meade area. Howard County Office staff helped find tax preparation firm partners in this effort. Another installation has an MOU with the local county tax office for it to establish a satellite office on the installation to provide free tax support to military personnel and others on the installation in exchange for free office space.

Some installations have partnerships to provide religious services to their servicemen and servicewomen and their families. For example, Naval Air Facility (NAF) El Centro, Calif., has partnered with two Catholic churches—St. Mary in El Centro and St. Margaret Mary in Brawley—so that the base's sailors and their families could attend Catholic services after the installation no longer had a Navy Catholic priest available in the region.

Another important type of installation partnership is one that helps support servicemen transitioning into the community or out of military service and/or helps them and their families find jobs. We illustrate with three different installation examples. First, Fort Drum has a partnership with Cornell Cooperative Extension of Jefferson County to help soldiers and their families deal with deployment and other problems, transition back to civilian life, find jobs, and be part of the local community. Second, Fort Bliss has an MOU with the nonprofit Upper Rio Grande Workforce Development Board for the board to provide an on-post workforce center for military spouses and family members to help them find jobs. The post provides free office space in exchange for this free employment service. Third, Eielson AFB, Fairbanks North Star Borough, and other Fairbanks local governments have a partnership in place to help inform qualified incoming Air Force dependents of city and borough teaching jobs. This partnership helps military spouses find jobs and helps community schools fill shortages in teachers, substitute teachers, aides, and tutors.

Besides providing recreation services to the military, community partners also help provide other types of leisure services to military personnel and their families, such as dances

or craft and hobby activities. A good example of this partnership type is one between Camp Pendleton and the Camp Pendleton Armed Services YMCA, which has been providing leisure services since World War II. Over the years, this partnership has grown and evolved to where the partner is providing a wide range of support to servicemen and servicewomen and their families (see Box 3.14). Another example of a partnership where the community partner provides a wide range of services to military personnel and the installation is the one between Naval Station Great Lakes and Goodwill Industries. Goodwill provides the base with laundry, food, post office, and administrative services, among others (see Box 2.3).

Another support partnership has to do with postal service. For instance, Seymour Johnson AFB in North Carolina has partnered with the U.S. Postal Service, United Parcel Service (UPS), and Federal Express for postal delivery. This agreement allows for direct mail and package delivery by the three providers to dormitory residents on base.

A common partnership that provides support for military personnel and their families is housing privatization partnerships. As was discussed in the last chapter, some housing privatization relationships where the private contractor provides installation housing for military personnel and their families may function more as a partnership than just a contractual relationship, as at Edwards AFB.

Box 3.14. Camp Pendleton and the Armed Service YMCA Partnership

The Camp Pendleton Armed Services YMCA (ASYMCA) in California is a civilian nonprofit charitable organization with a mission to "enhance the lives of military personnel and their family members in Spirit, Mind, and Body." The ASYMCA provides services on Camp Pendleton through a partnership that had its beginnings in 1943 when the ASYMCA sponsored movies, dances, and other activities for servicemen serving in World War II. Over time, the ASYMCA has worked collaboratively with Camp Pendleton to provide services needed by military personnel and their families that were both consistent with ASYMCA's mission and that complemented those offered by existing organizations at Camp Pendleton.

As military personnel and family needs changed over time, the ASYMCA–Camp Pendleton partnership has evolved.

- In 1967, the ASYMCA opened its first family center in a residential area because of increasing need for family services.
- By 1994, the ASYMCA operated three family centers in different housing areas and broadened its program to include preschool programs and parenting classes.
- In 1995, it was awarded a contract to provide before- and after-school care.
- In 1997, the ASYMCA was relocated onto Camp Pendleton.
- In 2012, Mothers-in-Transition was started to augment the New Parent Support Program provided by Camp Pendleton. It is offered to expectant and new mothers and is run by a licensed therapist who has specialized in the military.

Today the ASYMCA provides free or low-cost programs and services to active-duty military personnel and their families to reduce deployment stress, strengthen families, and enhance their quality of life (focusing on the needs of the junior enlisted). In addition to the family centers and before- and after-school care programs, the ASYMCA provides a suite of programs and services:

- Operation Hero Program, a free, school-aged mentoring, counseling, and tutoring program at four elementary schools and on-base and its summertime companion program, Camp Hero
- Summer day and resident camps in cooperation with two other YMCAs
- Camp Flashhh (Families Laughing and Sharing Hugs, Hopes, and Happiness), which provides activities and respite care during the summer months for families within the Exceptional Family Member Program
- Y-Shuttle transportation, which provides free transportation to medical; Women, Infants, and Children (WIC)^a activities; or counseling appointments and the commissary
- Project Liberty Call, which offers short-term financial assistance for families in crisis by providing gas cards for transportation to medical appointments and commissary gift certificates for food
- Recreation centers that have a lounge, sports equipment, game room, computers with Internet access, and a reading room for use by Marines after field training (Weekend bus service to the exchange [18 miles away] is also offered.)
- Special events, quilts for children of deployed marines, leisure and recreational activities, family activities, and holiday activities.

According to the ASYMCA, Camp Pendleton ASYMCA served more than 53,000 military families and Marines in 2010. Some programs and services are fee-based, while others are free. Since it is a nonprofit organization, it is able to raise funds in a variety of ways. The ASYMCA is funded through the United Way and other charitable contributions, corporate contributions, foundations, grants, program fees, and fees for services.

SOURCES: Camp Pendleton, "Welcome to the Armed Services YMCA of Camp Pendleton, CA," undated; Better Business Bureau, "Camp Pendleton Armed Services YMCA," December 2014; 2-1-1- San Diego, "Armed Services YMCA Camp Pendleton," undated; SVP San Diego, "Camp Pendleton Armed Services YMCA," undated.

^a WIC is a program to safeguard the health of low-income women, infants, and children up to age 5 who are at nutritional risk by providing: nutritious foods to supplement diets, information on healthy eating, and referrals to health care. See U.S. Marines, "American Red Cross, San Diego/Imperial Counties Chapter, California Women, Infants and Children," undated.

Mission and Other Types of Partnerships

The third general category is for PuPs that directly support the military mission of the installation, whether related to testing, training, R&D, mobilization, or helping prevent encroach-

ment. This last category also includes other types of PuPs that do not fit in any of the other functional areas.

Testing and Training Missions

The testing and training mission area includes partnerships that are focused on helping installation testing and training missions, often involving combined use of facilities. A common PuP here is when installations and communities, (including local police departments, sheriff departments, and the Federal Bureau of Investigation (FBI) share shooting training ranges. There are partnerships where installations use community shooting ranges, where the community uses the installation shooting ranges, and ones where they share them equally. For instance, Naval Submarine Base New London built a new \$11 million state-of-the-art indoor small arms range in 2012 and the base allows the Coast Guard, Connecticut National Guard, Groton City Police, and other community law enforcement officers to use this shooting range.³⁷ In Mississippi, the City of Columbus was working in 2014 with Columbus and Lowndes Counties to build a new firing range for use by local law enforcement agencies and Columbus Air Force Base personnel. The community included USAF specifications in its design to ensure that the USAF could use it for training purposes. Many of these partnerships do not involve any transfer of funds. However, there also are cases where a partner helps share the cost of constructing and maintaining an installation shooting range in exchange for using it. For example, at an Army installation, the state office of the Federal Bureau of Investigation helped share the cost of building a shooting range in exchange for using it.

Other training PuPs include combined use of airports and runways for training or the partner providing other support for a runway that is used for training. For example, at one western installation, the Army signed an MOU with three different communities so the Army's helicopter pilots could use the three different community airports for helicopter training because the installation has only one operational runway. Similarly, some of the joint-use airports (that were discussed previously under the transportation section) are used for military training purposes. In another western state, a county agency paved an old unused county runway (for a small fee) so a nearby Air Force Base could use it for training. This partnership saved the Air Force an estimated \$100,000.

Communities and other partners also help to build and construct some military testing and training facilities and may or may not make use of them. We present three diverse installation examples. First, GM constructed a multimillion-dollar testing facility for hot-weather vehicle testing at Yuma Proving Ground using an EUL agreement. Through this public-private partnership, GM provided a new vehicle testing facility that both GM and the Army use (see Box 3.15). Second, the State of Connecticut Office of Military Affairs (OMA) provided around \$11 million to help build training and other facilities at Naval Submarine Base New London. OMA spent \$2.5 million for a facility housing a new submarine bridge training simulation; \$7.7 million for a new diver support facility and boiler; and \$740,000 for a training kitchen for culinary specialists.³⁸ Third, the Nebraska Army National Guard and the City of Omaha have shared the construction costs and use of the Omaha Police and Fire Training Center. The city paid for specialized fire and police training facilities. The facilities include a burn tower, a

³⁷ Jennifer McDermott, "Navy Sub Base Unveils New Small Arms Range," *The Day* (Connecticut), August 31, 2012.

³⁸ For more information about the State of Connecticut Navy installation partnerships, see Box 5.1.

Box 3.15. Yuma Desert Proving Ground Vehicle Testing Partnership

Yuma Desert Proving Ground (DPG) partnered with General Motors (GM) in a public-private partnership to provide a new vehicle testing facility for the Army. The DPG in Yuma, Arizona, is one of the largest military installations in the world located in a remote area with an extremely hot climate, making it an ideal vehicle testing location for GM. At the time this partnership was being formed, the GM testing facility was in need of refurbishment and was located in Mesa, Arizona, where urban encroachment and security became a concern.

Finalized in May 2007, the Yuma DPG partnered with GM in a 50-year Enhanced Use Lease (EUL) allowing GM to finance and build a hot-weather testing complex (facility and tracks) on 2,400 acres at the DPG. The complex was completed in 2010. Both the Army and GM use the testing complex. All parties affected by the arrangement benefit in some fashion. GM was able to locate a modern, secure test facility buffered from encroachment and within protected airspace on Army property in exchange for building and maintaining test facilities to Army standards. The Army gained a new testing facility, saving an estimated \$100 million. The City of Yuma benefits from the added jobs, estimated at 250–300, and the increase in associated economic activity. The City of Mesa, where the old GM facility was located, benefits from redevelopment of the land in a high-growth area. After the contract term of 50 years ends, the facility remains with the Army.

Several factors contributed to the success of the partnership. Both GM and the Army had similar needs and goals, which facilitated the sharing of risks and benefits. The EUL was an established mechanism for bringing in partners to take advantage of underutilized federal property, and its purpose was consistent with congressional intent. Furthermore, a development company consisting of subject-matter experts—including legal counsel and contracting, facilities, and real property personnel—was used to develop the EUL and the shared-use agreement and to support the negotiations. The development company created a detailed business plan for the facility's use, and the contract specifically detailed how facility use was to be determined and consequences of failing to abide by the standards.

SOURCES: Alvarez and Marsal, "Case Study: Yuma Proving Ground Case Study," undated; Keenan Development Associates, "General Motors Desert Proving Ground—Yuma," 2007; National Council for Public-Private Partnerships, "Yuma Desert Proving Grounds, Yuma, Arizona," 2009.

search-and-rescue pond, a vehicle training bay, a residential search-and-rescue facility, indoor firing ranges, a crime scenario room, a driving simulation room, a firearms training simulator, and a K-9 training facility. The Army Guard paid for joint-use classrooms as part of a 45,000-square-foot Readiness Center that the Guard built on site. Besides sharing the training facilities, these partners also conduct joint training at this center, which is important training for the Guard's state mission to help with domestic emergencies.

Another common type of installation partnership related to testing and training operations is when installations use other federal and state lands for such activities. Many Western military test and training ranges include withdrawn federal lands, such as withdrawn Bureau of Land Management (BLM) lands for Edwards AFB, Fort Irwin and NAWS China Lake in the California desert. The Services have partnership agreements to comanage these lands; for example, the USAF has MOUs with the BLM and the USFWS for comanagement of their lands that have been withdrawn for the Nevada Test and Training Range.³⁹

Other training partnerships include those focused on medical training for military doctors, nurses, and other medical professionals. These types of partnerships were discussed in the medical and health issues section.

³⁹ Part of the Desert National Wildlife Refuge that is managed by the USFWS has been withdrawn for part of the Nevada Test and Training Range.

Other Military Missions

This PuP area includes R&D mission examples; activities to help prevent and mitigate encroachment so the installation can operate and perform its mission with minimal encroachment constraints; and other odds and ends that directly help mission functions, such as mobilization.

Partnerships that help installation R&D missions include students helping with installation R&D activities; the partner helping to fund and build installation R&D facilities; and having collaborative research centers between installations and universities. We demonstrate with several examples. As was discussed earlier, Aberdeen Proving Ground in Maryland has a partnership with the Department of Energy and Oak Ridge Associated Universities for college and postdoctoral students to do military health science research for the installation. Many Educational Partnership Agreements (EPAs) between installations and universities also involve students helping with installation R&D, such as the EPA between the Naval Surface Warfare Center, Indian Head Division (NSWC IHD), Naval Explosive Ordnance Disposal Technology Division, and the University of Puerto Rico Mayaguez. These Navy organizations also have a partnership with the Polytechnic University of Puerto Rico for a required engineering course, in which university students perform Navy-directed research in class and the students complete the project and put it into place at the Navy facilities.⁴⁰

An example of a partner helping to fund and build an R&D facility is a partnership between Hanscom AFB and the Massachusetts Institute of Technology (MIT). MIT is building a \$450 million research facility on base that both parties will use. The base will pay fees to use part of the research space. A similar project was conducted in 1988, when MIT financed a 10-acre research facility for Lincoln Lab on Hanscom under a 40-year lease.⁴¹

A collaborative research center partnership example involves Kirtland AFB and the Configurable Space Microsystems Innovations and Applications Center, a congressionally supported space electronics center established at the University of New Mexico in Albuquerque. Students from that school and other universities work with faculty to design and build space electronics to help Kirtland's mission, NASA, and other relevant research users.

There are numerous examples of installations partnering with communities, states, NGOs, private landowners, and others so installations can operate and perform their missions with minimal impact from encroachment issues. Before discussing partnerships to address encroachment concerns, we should define *encroachment*. One USAF definition is:

Any deliberate action by government or non-governmental entity or individual that does, or is likely to inhibit, curtail, or impede current or future military activities within the installation complex and/or mission footprint; or deliberate military activity that is, or is likely to be incompatible with the use of a community's resources.⁴²

As there has been increasing urban and suburban growth around military installations during the last 40 years or so, it can affect an installation's ability to conduct operations, especially testing and training. For example, at MCAS Beaufort in South Carolina, residential and retirement developments grew near the installation, resulting in problems with noise

⁴⁰ Mike Welding, "Commands Sign Educational Partnership Agreement," NSWC IHD, February 10, 2012.

⁴¹ Bryan Bender, "MIT Seeks to Invest \$450M at Hanscom," *Boston Globe*, April 20, 2012.

⁴² Steve Zander, "Encroachment Issues and Resolutions," presentation at the Monterey 2012 ADC Conference, USAF, August 7, 2012.

complaints and even some lawsuits regarding the installation's aircraft training flights.⁴³ Many installations face similar threats to their operations from such encroachment issues. As the "2014 Report to Congress on Sustainable Ranges" states:

Continuing encroachment challenges faced by the Military Services include impacts related to endangered species management and species at risk; incompatible development, to include renewable energy siting; offshore operational security concerns; and impacts related to the reallocation of electromagnetic spectrum.⁴⁴

Military operations tend to be affected by encroachment in four main ways: by causing testing, training, and other operational restrictions; increasing operational costs (such as having to relocate a training exercise to another installation); causing community complaints and damage claims; and degrading military readiness.⁴⁵ Partnering with local communities and other key stakeholders, often through activities that ensure compatible land use near installation operations, has been a successful way to minimize such encroachment concerns. In the case of MCAS Beaufort, the installation has created an Encroachment Partnering Program to partner with and outreach to the community and to buffer runway accident potential and noise zones. In one of its activities, MCAS Beaufort has partnered with the Trust for Public Land and Beaufort County to acquire properties near the installation for the Beaufort County Open Space preserve system. The county owns the land as open space and parkland, while the Marine Corps has easements on the parcels that restrict any incompatible development.⁴⁶ Similarly, Fort Carson has partnered with local governments, NGOs, and others to address encroachment concerns from the growing suburbs of Colorado Springs (see Box 3.16). Later we explain the OSD REPI Program, which helps support such partnerships, and present another example of NAS Whiting Field in Florida (see Box 4.2).

Another key installation partnership activity that helps address encroachment concerns is one between the community and the installation to develop and implement a Joint Land Use Study (JLUS) for the installation. A JLUS is a strategic plan to help ensure that civilian growth and development are compatible with installation training, testing, and other military operations. OSD's Office of Economic Adjustment (OEA) helps provide technical and financial assistance to communities to conduct a JLUS, which is usually a one-year, collaborative land-use planning effort between surrounding local governments and a military installation. A JLUS develops specific "recommendations for the community to adopt in an effort to promote compatible development and to protect public health, safety, and welfare while ensuring the mission of the installation is upheld."⁴⁷ More than one hundred U.S. installations have partnered with surrounding communities to develop JLUS plans since 1985, such as at Malmstrom AFB in Montana, Panama City Naval Support Activity in Florida, and Camp Roberts in Cali-

⁴³ Lachman, Wong, and Resetar, 2007, p. 167.

⁴⁴ OSD, "2014 Report to Congress on Sustainable Ranges," 2014.

⁴⁵ Beth E. Lachman, Agnes Schaefer, Nidhi Kalra, Scott Hassell, Kim Curry Hall, Aimee E. Curtright, and David E. Mosher, *Key Trends that Will Shape Army Installations of Tomorrow*, Santa Monica, Calif.: RAND Corporation, MG-1255-A, 2013.

⁴⁶ For more information about MCAS Beaufort's Encroachment Partnering Program, see Lachman, Wong, and Resetar, 2007, Appendix E.

⁴⁷ Office of Economic Adjustment, "Compatible Use," U.S. Department of Defense, updated March 6, 2014.

fornia.⁴⁸ MCAS Beaufort partnered with Beaufort County, the City of Beaufort, the Town of Port Royal, and the Lowcountry Council of Governments to develop the Lowcountry JLUS for MCAS Beaufort. The local governments also implemented some of the recommendations in this plan, such as zoning restrictions.⁴⁹ Similarly, a JLUS was developed for NAS Whiting Field that Santa Rosa County has implemented by establishing military airport zones near

Box 3.16. Fort Carson Partnerships to Address Encroachment Concerns

Fort Carson is a 137,000-acre training post in Colorado. It has been involved in a number of different partnerships to prevent encroachment from affecting installation training and other operations. The installation is experiencing encroachment pressures from residential and urban growth from Colorado Springs to the north and Pueblo to the southeast. These concerns include complaints and safety issues related to training involving explosives, noise, or dust; potential light pollution impact on night training; and protecting habitat to help avoid potential threatened and endangered species (T&ES) restrictions. As part of its sustainability program, Fort Carson has a Sustainable Training Lands goal with an objective to protect ranges and training lands from development encroachment by creating a contiguous land buffer of about 1.5 to 2 miles of open space and compatible land uses around the installation's southern and eastern perimeter.⁵⁰ Fort Carson has been working with diverse partners in its buffering projects to help leverage funding, aid in negotiations and third-party acquisitions, and help provide strategic analysis and other support. Partners have included El Paso County, Pueblo County, Colorado Springs Economic Development Corporation (CSEDC), U.S. Fish and Wildlife Service, Colorado Department of Transportation, Colorado Open Lands, Colorado Division of Wildlife, Great Outdoors Colorado, The Nature Conservancy, and private landowners.

Fort Carson has been developing local buffering projects around the installation to help meet the Sustainable Training Lands buffer objective. We illustrate with two different partnership activities. First, in 2005, Fort Carson partnered with CSEDC and El Paso County to purchase land from Casa Builders in the western end of the Rancho Colorado development, which is just outside the border from an artillery range on the eastern side of the installation. El Paso County owns the land and has a contract that prohibits any incompatible uses on it. In exchange, the county granted a zoning change to allow Casa Builders to build 250 homes at a higher density farther away from the post in the Midway Ranch area near Interstate 25. Since this first deal, Fort Carson and El Paso County have continued this partnership to purchase more land from voluntary landowners east of the installation in this area, now known as the Rancho Colorado Buffer Zone. El Paso County now owns at least 937 acres of the Rancho Colorado Buffer Zone, helping protect the training ranges from complaints about noise and other issues, and limiting potential light pollution impact on night training. Second, Fort Carson has partnered with The Nature Conservancy (TNC) to purchase conservation easements on ranchlands directly south and east of the post. TNC personnel took the lead to negotiate with two local ranchers for these easements, which prohibit development of the land and allows only ranching and conservation practices in the future. One of these easements also protects four rare plant species that occur on the southern end of the installation and the ranchland. With all of Fort Carson's different buffering activities, 24,346 acres have been preserved in the buffer zone around the post. These areas help preserve training activities, protect critical wildlife and plant species, provide open space in the region, and allow local ranchers to continue their traditional ways of life.

Besides the buffering projects, regional concerns have led Fort Carson to participate in two more strategic regional activities to preserve and conserve land and the environment: the Peak to Prairie Project and the Central Shortgrass Prairie (CSP) partnership. The Peak to Prairie Project is a large-scale conservation initiative in El Paso and Pueblo Counties covering more than 900 square miles designed to protect working agricultural operations, scenic vistas, threatened wildlife habitat, military assets, and open space. The goal of the project is to preserve these resources by protecting public and private lands, and a key priority includes helping to establish a buffer to the east of Fort Carson. Partners include, among others, Colorado Open Lands, The Nature Conservancy, Colorado State Parks, El Paso and Pueblo Counties, Colorado Springs Utilities, the U.S. Department of Agriculture's Natural Resource Conservation Service, Fort Carson and the U.S. Department of Defense (DoD).

⁴⁸ For a list of completed joint land use studies, see: Office of Economic Adjustment, "Completed Land Use Studies," November 2013.

⁴⁹ It is important to note that installations cannot rely on favorable zoning to last because it can be changed or developers can be granted variances. Both local government and installation personnel involved in the Lowcountry JLUS process pointed out such issues. For more information about the challenges in gaining favorable zoning to address development pressures near installations, see Lachman, Wong, and Resentar, 2007, pp. 161, 162, 164, etc.

Box 3.16.—Continued

Because of ecosystem and habitat health and T&ES concerns, Fort Carson is an active partner in the CSP Ecoregion Partnership. This partnership is a collaboration of Fort Carson; DoD; Colorado Division of Wildlife; U.S. Fish and Wildlife Service; U.S. Forest Service; The Nature Conservancy; Colorado Association of Conservation Districts; Colorado state natural heritage programs; private landowners; and other federal, state, and nongovernmental agencies and organizations. The goal of the CSP partnership is to study, manage, and preserve the CSP ecoregion by protecting key ecological patches and conservation corridors so managers can try to maintain a healthy, viable ecosystem. The CSP ecoregion encompasses approximately 56 million acres and includes parts of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, Texas, and Wyoming. Species of concern within the CSP include ten federally listed and 31 imperiled species, such as the mountain plover, black-tailed prairie dog, and round-leaf four o'clock. If the black-tailed prairie dog or some of these other species became a listed T&ES, it would likely cause significant training restrictions at Fort Carson. By participating in this CSP partnership and the Peak to Prairie Project, Fort Carson and its many partners are proactively contributing to regional environmental activities that can potentially help prevent and minimize future environmental restrictions on the post's operations.

SOURCES: Fort Carson, "Fort Carson 25-Year Sustainable Goal Plan; Goal: Sustainable Training Lands," *Fort Carson Sustainability Goals Update FY10*, 2011; Lachman, Wong, and Resetar, 2007; B. Neely et al., *Central Shortgrass Prairie Ecoregional Assessment and Partnership Initiative: Final Report*, Nature Conservancy of Colorado and the Shortgrass Prairie Partnership, November 2006; OSD, "U.S. Army: Fort Carson: Colorado," Readiness and Environmental Protection Integration fact sheet, undated-b; and Bob Stephens, "Land Purchases Increases Carson Buffer Zone," *The Gazette*, May 17, 2012.

^a For more on the Fort Carson Sustainable Training Lands goal and objectives see: Fort Carson, "Fort Carson 25-Year Sustainable Goal Plan; Goal: Sustainable Training Lands," *Fort Carson Sustainability Goals Update FY10*, 2011.

the airfield, and enacting and enforcing zoning and other requirements to direct growth away from Whiting Field. Specifically, the county will not allow development or upzoning in the military airport zones,⁵⁰ focusing development away from these areas.

Other partnerships that directly help mission functions include helping during mobilization and with the military recruiting mission. We briefly mention an example of each. At a large installation in the West, the local school district provides buses for transportation during mobilization or declaration of war. About five years ago, during the height of the wars in Afghanistan and Iraq, the Alabama National Guard partnered with the Alabama Community College System to have a National Guard recruiter on all 83 system campuses.⁵¹

University students also help on non-R&D installations with mission functions, such as improving process efficiencies. For instance, Ellsworth AFB partnered with the South Dakota School of Mines and Technology to establish a work-study program for industrial engineering students. The students conduct projects that analyze "facilities and processes in the areas of design, usage and efficiency improvements of Ellsworth missions."⁵²

⁵⁰ These military airport zones encompass the Navy's Accident Potential Zone, as well as the Air Installation Compatible Use Zone. Lighting that could affect night-flying is an additional factor that is considered.

⁵¹ Some of these recruiting locations may have closed since then, when they were found not to be sufficiently effective for recruiting.

⁵² Ellsworth Air Force Base, "Memorandum of Understanding (MOU) Between South Dakota School of Mines and Technology (SDSM&T) and the 28th Bomb Wing (28 BW)," January 2014.

Other Partnership Areas

This last area captures other partnerships that do not obviously fit in one of the other functional areas. It includes many PuPs where the partner is using office space, an installation facility, or land in exchanging for providing a service or monetary payment, such as EUL deals for commercial activities. Installation office space, facility, and land examples are presented. Fort Bliss has an MOA to provide office space to the Small Business Administration (SBA) so it can provide a service to the installation. At Creech AFB in Nevada, the Town of Indian Springs is renting the base church for community use. An EUL deal for commercial purposes that functions like a partnership occurs at Eglin AFB, which is leasing out 17 acres of land on Okaloosa Island for \$25 million for development of the 152-room Emerald Breeze Resort.

This partnership area also includes some unusual agreements, where the partner supplies a service to the installation for free or for a monetary or in-kind payment. We illustrate with two installation examples: Fort Knox and Hill AFB. Fort Knox, Hardin County, and Knox Hills LLC (the privatized housing partner) have an agreement where stray cats and dogs are picked up on post by Knox Hills LLC and transported to the Hardin County Animal Shelter. Fort Knox pays \$142 per stray animal, but the post has significant cost avoidance in the long run by closing its own animal shelter (cost savings on building upgrades, operating costs, and three NAF salaries). The post's stray animal facility was older and needed at least \$1 million worth of upgrades to the HVAC and plumbing systems. The animals also have better facilities and a greater likelihood of adoption, since the county had built a new state-of-the-art animal shelter. At Hill AFB, an MOA signed with the Davis Area Convention and Visitors Bureau and the Ogden/Weber Convention and Visitors Bureau provides for the bureaus to work with local hotels to identify commercial lodging/hotel rooms for base visitors at discounted hotel rates. In addition, some relationships built on the privatization of installation hotels function as installation partnerships, such as at Fort Gordon, which turned three post hotels over to Inter-Continental Hotel Group (a private company) to improve service and to manage and run these hotels.

Conclusions About Installation Partnerships and Functional Areas

As this discussion indicates, military installations are already involved in a wide range of partnerships. These partnerships are diverse in terms of the functions that are performed, the type and level of resources involved, and the objectives and organization of the partnerships themselves. Throughout the United States, there are partnerships between military installations and communities, NGOs, and other organizations for a large proportion of functions performed on an installation. Examples in 17 different functional areas that relate to the installation's mission, servicemen/servicewomen, family and other personnel support services, and installation operations and infrastructure, have been reviewed in the previous discussion.

The reasons for these partnerships are varied. Many are driven by the desire for resource rationalization, but other reasons include the desire to coordinate program operations to improve program effectiveness, meet the specialized needs of specific demographic groups, manage issues that are best addressed on regional or broader scales, meet legal requirements of various activities, and/or meet a critical but infrequently encountered need. The benefits from partnerships are similarly varied, and include saving military and community dollars, improv-

ing community and military operations, improved stakeholder relationships, and benefits to the environment. These issues are further discussed in the next couple of chapters.

Many partnerships came about because of opportunistic circumstances, while others were derived from a calculated need. Some are simple to realize and may only require verbal agreements, while others involve closer operational coordination and might require a legal agreement of some sort. The specifics of the partnership arrangement depends on the military installation's needs and capabilities, as well as the local conditions—including such factors as the strength of the local economic and tax base; the capacity, location, and capability of legacy infrastructure; demographics and socioeconomic factors; political climate; and geography.

These partnership experiences provide many real-world experiments in working with communities that can inform future endeavors. The bottom line is that DoD writ large has a lot of partnership experience to draw from, as well as community relationships to build upon.

Diverse Approaches and Objectives of Installation Partnerships

In examining hundreds of different installation partnerships, we found that they are developed in different ways, using diverse approaches and authorities, with diverse partners and different partner objectives. We discuss these issues in this chapter. First, different approaches that have been used in developing and implementing installation partnerships are presented. Second, we provide an overview of the wide range of partners participating in installation partnerships. Lastly, we describe the diverse installation public-to-public partnership (PuP) relationships based on the different partners' objectives.

Range of Approaches in Implementing Military Installation Partnerships

Many different approaches are taken in developing and implementing installation partnerships. Some are started through official Office of the Secretary of Defense (OSD) and service programs or by official or unofficial installation or community processes, while others may be initiated by an individual in the community or at an installation who has an idea or a need. Partnerships are also developed using many different authorities or agreement types. We discuss the diversity of these approaches here.

Many Different Types of Authorities and Partnership Agreements Are Used

There are many different OSD and Service programs, initiatives, and other activities that can be used to develop and implement an installation partnership to help address an installation need. Some are official federal or U.S. Department of Defense (DoD) programs that have been in place for a dozen years or more, while others are more recent and not official programs. Here, we discuss some of the more common programs and activities used for developing and implementing installation PuPs. We begin by discussing four types of official federal and DoD partnership programs and initiatives that have their own authorization language and have been in place for at least ten years (see Table 4.1). The advantage of such efforts is that there are official procedures in place and experience in implementing such partnerships. Next, we will discuss some of the installation activities to help installations implement more PuPs because of the authority from Sec. 331 in the 2013 National Defense Authorization Act (superseded by Sec. 351 in the National Defense Authorization Act [NDAA] of 2015).

It is important to note that other federal programs are also used to develop installation partnerships, often in specialized areas. For example, another program that is used to develop and implement installation PuPs is a Cooperative Research and Development Agreement (CRADA): a written agreement between a federal agency, including a military installation, and

Table 4.1
Long-Running Federal and Office of the Secretary of Defense Partnership Programs and Initiatives

Program or Initiative Name	Authority
Educational Partnership Agreement (EPA)	10 U.S.C. Sec. 2194
Utility Energy Service Contract (UESC)	10 U.S.C. Sec. 2913
Readiness and Environmental Protection Initiative (REPI)	10 U.S.C. Sec. 2684a
Enhanced Use Lease (EUL) ^a	10 U.S.C. Sec. 2667

^a Technically an EUL is not a partnership, but can act like a partnership because of the relationship that develops.

SOURCE: U.S. Code, Title 10, Armed Forces, Subtitle A, General Military Law, Part IV, Service, Supply, and Procurement, Chapter 159, Real Property; Related Personal Property, and Lease of Non-Excess Property, Sec. 2667, Leases: Non-Excess Property of Military Departments and Defense Agencies.

a private company, nonprofit or other public agency to work together on a research and development project. CRADAs were authorized by the Federal Technology Transfer Act of 1986.¹

Educational Partnership Agreement

An educational partnership agreement (EPA) is a formal agreement between a federal agency and an educational institution in the United States for the purpose of encouraging and enhancing study in mathematics, engineering, and scientific disciplines at all levels of education. Any laboratory, product center, test center, depot, training and educational organization, or operational command under the jurisdiction of DoD may partner with local schools, colleges, universities, and any other nonprofit institutions that are dedicated to improving science, technology, engineering, and mathematics (STEM) education. The EPA is authorized by the Educational Partnership Act (10 U.S.C. Sec. 2194), passed in 1999, which recognizes DoD's role in promoting education in STEM fields. For instance, because of its mission of conducting research and developmental flight testing and evaluation of aerospace systems, Edwards Air Force Base (AFB) in California needs highly trained STEM personnel and has partnered in an EPA with Antelope Valley College to help promote STEM education in the region (see Box 4.1).

¹ With a CRADA, the nonfederal partner may provide funds to the federal agency but the federal agency is not allowed to provide funds to the nonfederal partner. For more information about how CRADAs are used in the military, see U.S. Air Force, "Technology Transfer Cooperative Research and Development Agreements (CRADAs)," factsheet, undated.

Box 4.1. An Educational Partnership Agreement between Edwards Air Force Base and Antelope Valley College

Edwards Air Force Base (AFB) is located in the Antelope Valley, a desert community 70 miles northeast of Los Angeles. To help ensure that a qualified labor force exists, the Air Force Research Lab, Aerospace Systems Directorate (AFRL/RQ) at Edwards has partnered with Antelope Valley College through an Educational Partnership Agreement (EPA) to enhance science, technology, engineering, and math (STEM) education in the area. The agreement provides for the sharing of research and development (R&D) facilities, staff, and students between Edwards AFB and Antelope Valley College, thereby aligning STEM education more closely with applied research. College costs are in-kind. The Air Force laboratory pays for computing.

Each partner benefits from this agreement in a variety of ways. For instance, because of this agreement, the Air Force laboratory can augment its staff with faculty and students who participate in laboratory-based research projects. This ultimately allows the Air Force to have access to a larger number of qualified scientists, engineers, and technicians from which to draw employees. Moreover, the agreement provides the Edwards laboratory with improved access to Antelope Valley College-based research, facilitating joint studies. The Air Force lab also gains access to the physical resources of computing, libraries, and visitor spaces.

Antelope Valley College benefits from having the Air Force Research Lab personnel's input into class development, as well as the enhanced research opportunities provided for both staff and students in real-world applications. Edwards also loans modern equipment and provides surplus laboratory equipment to the college when available. The closer interaction between the educational staff and the laboratory personnel has improved the curriculum and augmented staff expertise (laboratory staff may help teach and provide advice on course materials), and has increased enrollment in college STEM classes. Students can ultimately receive course credits for work performed with AFRL/RQ personnel. This agreement, along with the other collaborations in the region, contributes to improved STEM education and a higher skill level in the region overall.^a

^a For more information on this EPA, see Antelope Valley College, "Educational Partnership Agreement Between the Department of the USAF Represented by the AFRL/RQ and AVC," December 10, 2012; Leslie Uhazy, "Partnering with Higher Education," *ADC Winter Forum*, Association of Defense Communities, 2011.

Readiness and Environmental Protection Integration Program

The REPI Program is an OSD program started in 2003 that helps protect installations from different types of encroachment pressures, such as urban and suburban development near the installation fence line. It supports cost-sharing partnerships authorized by Congress (10 U.S.C. Sec. 2684a) between the military Services, private conservation groups, and state and local governments to protect military test and training capabilities and conserve land. These partnerships acquire easements or other interests in land from willing sellers to preserve compatible land uses and sustain wildlife habitat near installations and ranges where the military operates, tests, and trains. These partnerships can be very diverse and involve different partners who play different roles based on the local circumstances and needs. For instance, Naval Air Station (NAS) Whiting Field in Florida has REPI partnerships where different partners provided diverse help, such as Santa Rosa County providing geographic information system (GIS) analysis and support, The Nature Conservancy (TNC) facilitating and negotiating land purchases, Florida Forever purchasing parklands that buffer the base, and the U.S. Department of Agriculture (USDA) providing grants to place easements on agricultural lands near the base (see Box 4.2).

The U.S. Air Force (USAF), Army, Navy, and Marine Corps each have their own individual approaches and programs to implementing REPI. For instance, the Army's program is

Box 4.2. Naval Air Station Whiting Field and Its Readiness and Environmental Protection Integration Partnerships

Naval Air Station (NAS) Whiting Field is a naval aviation training complex located north of Milton, Florida, in Santa Rosa County in the western Florida Panhandle and southern Alabama. The installation comprises more than 9,000 acres, including 4,000 acres at the main base and more than 5,000 acres at 14 Navy Outlying Landing Fields in Florida and Alabama. Because of the growth and development pressures in the region, NAS Whiting Field faces significant encroachment concerns that could affect its training operations. Through the Readiness and Environmental Protection Integration (REPI) program and its authority, NAS Whiting Field has implemented a range of strategic partnerships with county, state, and other federal and nongovernmental organizations. The installation has been very successful in leveraging diverse funding sources to protect its training mission, prevent incompatible development, and preserve important habitat in an ecologically rich and high-population growth area. Through its REPI activities, the installation has preserved 3,171 acres in 28 different transactions, with partners providing 51 percent of the funding for the buffering projects.

Key installation partners have included Santa Rosa County, The Nature Conservancy, Florida Department of Environmental Protection, Florida Forever, the Florida Defense Alliance, and the U.S. Department of Agriculture (USDA). In many cases, these partners are finding and providing a majority of the funding for the projects. Partners also contribute staff time, technical expertise and resources, operational flexibility, financial resources, and political and community relations help. Technical expertise and resources include negotiation skills, conservation easement development assistance, geographic information system (GIS) capability, and biological analysis skills. For example, Santa Rosa County purchased buffering lands (without Department of Defense funds), provided GIS analysis and support, and invested numerous staff hours and time to help the installation plan and prevent nearby incompatible development. The Nature Conservancy has facilitated land purchases with state funds to support its goals of critical habitat protection and the creation of wildlife corridors. The Nature Conservancy also assisted NAS Whiting Field in preventing encroachment by making connections with state programs, providing political support, and assisting in negotiations over state land purchases. State of Florida agencies and their land conservation programs have also been important partners. For instance, Florida Forever is a land conservation acquisition program to preserve key habitat, ecological greenways, and other important natural resource areas throughout the state. Florida Forever funds have been used to purchase state parklands that help buffer the installation. Specifically, this program has given priority to projects that buffer military installations while conserving habitat. The Florida Defense Alliance is a nonprofit partnership between state organizations, base commanders, community leaders, and business executives to help support the military installations in Florida in a variety of ways, including providing funds and other support for conservation buffering. NAS Whiting Field has also partnered with the USDA, which has interests in land acquisition to preserve agricultural lands. USDA-identified parcels near the NAS have been incorporated into easement acquisitions using USDA grants to preserve agricultural land, in addition to securing compatible land-use adjacent to the installation.

The NAS has also been very successful at leveraging diverse compatible uses around the base to help find funding for completing buffering projects. For example, county lands will be used for an aviation park and an off-road recreation area. Florida Department of Environmental Protection Office of Greenways and Trails funds were used to acquire land to build a trail around the base and an 11,528-acre parcel that connects with Blackwater River State Park and helps protect habitat and provide wildlife corridors. USDA grants were used to preserve agricultural lands through the purchase of agricultural easements.

These actions have benefited both the installation and the community. NAS Whiting Field has benefited by promoting and enhancing military readiness through the protection of the training mission by minimizing incompatible development, radio frequency interference, and light interference. The buffer zones established through these partnerships have helped to preserve operational flexibility, while improving overall flight safety and public safety, in addition to reducing nuisance noise complaints about flight operations. More than some communities in other parts of the country, city and county planners and other community members also value the economic contributions of the NAS to the local economy and its role in national defense. Another community benefit is helping ensure that residents have access to open space. Both the installation and community see benefits from the trail and the environmental aspects, including the protection of watersheds, key habitats, threatened and endangered species, and biodiversity.

SOURCES: Lachman, Wong, and Resetar, 2007; REPI, "U.S. Navy: NAS Whiting Field: Florida," fact sheet, undated-h; Naval Air Station Whiting Field, "History, Mission, and Vision of Whiting Field," undated; Dave Dunwoody, "More Buffer Land for NAS Whiting Field," WUWF Public Media, February 11, 2014.

called the Army Compatible Use Buffering (ACUB) program.² Individual installations apply and compete for REPI funds along with Service funds. Partner contributions are an important part of the REPI program. In fact, from the start of the program in 2003 through fiscal year (FY) 2013, REPI projects have leveraged almost 50 percent partner funds in all the REPI deals, with partner contributions being \$400.92 million and REPI plus Service funding being \$891.71 million.³

Utility Energy Service Contract

As briefly discussed earlier, a UESC is a partnership between an installation (or other federal customer agency) and a utility company that enables the implementation of energy and water efficiency projects. The utility company may be a public or private entity. Military installations have been authorized since the early 1990s to enter into UESC agreements with gas, electric, or water utility companies to design and implement energy and water efficiency projects, under the authority of 10 U.S.C. Sec. 2913. With this funding mechanism, installations can implement energy and water efficiency projects without up-front capital costs or special congressional appropriations. The utility pays for the energy and water efficiency investments, and the installation pays it back from its energy and water savings over time. For instance, Fort Knox in Kentucky has been collaborating with Nolin Rural Electric Cooperative Corporation (RECC) in UESCs for over 20 years (see Box 4.3). Across the entire federal government, almost 1,700 UESC projects have been awarded between 1994 and 2013, and federal agencies have used them to invest approximately \$2.3 billion in federal facilities and saved more than 14 trillion British thermal units.⁴

² ACUB allows Army installations to use funds to enter into partnership agreements with county, state, or municipal governments, as well as with nonprofit organizations, allowing the partner to purchase tracts of land or easements on lands from willing sellers as a way to establish buffers around installations and maintain existing land uses or protect habitat. Buffer areas are established around Army installations to limit the effects of encroachment by preventing commercial and residential activities along installation boundaries and to maximize use of land inside the installation to support the training and testing mission of installations.

³ Actual percentage is 49.4465; see REPI, “2014 REPI Annual Report to Congress,” Washington, D.C.: Department of Defense, 2014.

⁴ Edison Electric Institute, “Utility Energy Service Contracts Promote Energy Efficiency In Federal Facilities,” March 2013.

Box 4.3. Fort Knox Utility Energy Service Contract Partnerships with Nolin Rural Electric Cooperative Corporation

Fort Knox has a long history of implementing Utility Energy Service Contract (UESCs) in partnership with Nolin Rural Electric Cooperative Corporation (RECC) and significant energy savings from this partnership arrangement. For instance, between fiscal years (FYs) 1996 and 2006, this post had a 58-percent reduction in absolute energy consumption due mostly to its UESC projects. Nolin RECC, a public utility, is Fort Knox's utility privatization contractor for electricity and it maintains the post's power lines. Fort Knox has a strong working relationship with Nolin RECC, having partnered with them in UESCs for over 20 years.

Fort Knox began implementing UESCs in collaboration with Nolin RECC in the mid- to late 1990s. By 2002, the post had invested nearly \$18 million in UESC project investments and they included numerous delivery orders. From FY 1996 to FY 2006, 70 UESC projects were implemented. By fall 2008, Fort Knox had implemented 91 UESC projects. The first energy-efficiency projects in 1996 and 1997 were mostly lighting projects. Over time, the projects have become larger and more complex and often are bundled together to meet a ten-year payback requirement.

Fort Knox UESC projects have included ground source heat pump (GSHP) installations, boiler upgrades and replacements, lighting retrofits, window/roof replacements, heating, ventilation, and air conditioning (HVAC) system replacements, high-efficiency motor retrofits, Energy Management Control System (EMCS) equipment, occupancy sensor installations, photovoltaics, and natural gas extraction test wells. UESC projects also pay for operations and maintenance personnel for these projects, including personnel to monitor Fort Knox's extensive EMCS, which is in a few hundred buildings.

Besides energy usage and cost savings, the installation has also improved building performance and had operations and maintenance cost savings from UESC partnership projects. In addition, there have been synergistic benefits from partners working so closely together. For instance, Nolin RECC maintains the electrical meters for Fort Knox and provides quick service to repair them. The utility has also provided energy-related classes for Fort Knox personnel and energy audits, as well as a safety class for Fort Knox firefighters and schools. Nolin RECC also participates in some Fort Knox community events, such as providing a booth at Fort Knox's Morale, Welfare, and Recreation (MWR) day, providing safety information for children and their families. This utility partner has an office on post, and Nolin's vice president often is available there to meet with contractors and post personnel. In fact, Nolin RECC and its contractors are integrated into Fort Knox's energy management community, providing on-site support in operations, maintenance, and technical assistance.

SOURCE: Lachman, Hall, et al., 2011, pp. 39–40 and Appendix C.

Enhanced Use Lease Program

Another long-standing DoD program at installations that relates to partnerships is installation Enhanced Use Lease (EUL) activities. Legally, an EUL is a real estate deal involving federal property, not a partnership. However, an EUL is often like a partnership, because an installation and public entities or private developers collaborate over the long term (up to 50 years) to create mutually beneficial development projects on nonexcess installation real estate. In exchange for leasing property, the installation receives cash or in-kind consideration from the lessee at or above fair market value. This provides an additional revenue stream for the installation. For example, Grand Forks County in North Dakota is using an EUL to lease base land from Grand Forks AFB for a 217-acre industrial park on the western edge of the base. This industrial park's focus is an unmanned aerial system (UAS) campus that will be built by private developers. Grand Forks AFB is expected to earn an estimated \$12–22 million net present value (NPV) over 50 years from this project (see Box 4.4).

In an EUL deal, an in-kind consideration may include providing maintenance, protection, alteration, repair, improvement, or restoration (including environmental restoration) of property or facilities; construction of new facilities; providing use of other facilities; providing payment of utility services; or providing other services relating to activities that will occur

Box 4.4. The Grand Sky Project—An Enhanced Use Lease Deal at Grand Forks Air Force Base

At Grand Forks Air Force Base (AFB) in North Dakota, Grand Forks County is leasing 217 acres on the western edge of the base through an Enhanced Use Lease (EUL) to build an unmanned aerial system (UAS) campus, called the Grand Sky Project. This EUL deal is different from many others because it has been developed and facilitated by a community rather than the private sector. This project began around 2008, when county staff, familiar with EUL deals, approached the base commander to see if there was property on base that was available for potential lease and wouldn't interfere with the base mission. County staff researched different development ideas and identified the UAS opportunity, then worked with base, private-sector, state, and Air Force Civil Engineer Center (AFCEC) staff to make it happen.

In this deal, the county worked with different private companies that are building the campus, and it will be the commercial UAS developers designing, testing, and operating UASs on the base. Up to 1.2 million square feet will be developed through this project. The county expects to gain 2,500 to 3,000 new jobs and increase its tax base. In addition, these jobs will offer new employment opportunities for local university graduates. Many of the University of North Dakota aviation program's graduates move out of state in pursuit of jobs in their field; in the future, the Grand Sky Project will offer them local job opportunities in UAS pilot training, systems testing, research, and sensor development.

The U.S. Air Force is expected to earn an estimated \$12–22 million net present value (NPV) over 50 years from this project, and it saves \$16 million that it would have had to spend to remove the existing infrastructure on the property. The state and county have invested funds in the project for utility infrastructure, road, and other improvements. The State of North Dakota has committed \$5 million for such investments.

SOURCES: Association of Defense Communities, "EUL Project Creates Opportunity for Host Community to Support Grand Forks AFB," January 7, 2014; Brian Brown et al., "Replicating the Grand Sky EUL Model—Issues and Opportunities," panel presentation, *ADC 2014 Installation Innovation Forum*, San Antonio, Texas; Association of Defense Communities, February 11, 2014; North Dakota Office of the Governor, "Air Force Announces Intention to Sign Enhanced Use Lease with Grand Forks County," October 17, 2013.

on the leased property.⁵ For instance, at Nellis AFB in Nevada, the U.S. Air Force has an EUL agreement where the City of North Las Vegas provides a \$25 million fitness center and \$10.8 million for reclaimed water and water supply infrastructure on base. EULs have been authorized since 1996 under 10 U.S.C. Sec. 2667.

Implementing Section 331

Sec. 331 of the NDAA passed by Congress in January 2013 provided new authority for installation partnerships with communities. Specifically, 10 U.S.C. Sec. 2336 gives military installations and local and state governments new statutory authority to enter into agreements for "installation support services." It allows for a variety of intergovernmental support agreements (IGSAs) between military installations and other governmental agencies. Not surprisingly, given the differences in their organizational structures and approaches to installation management, the Services have taken different approaches to implementing the NDAA Sec. 331 authority. We briefly discuss the Air Force, Army, and Navy approaches.

The Office of the Assistant Secretary of the Air Force for Installations, Environment and Logistics (SAF/IEE) has established a policy regarding intergovernmental partnerships as well as a process to systematically identify potential partnership activities that meet the needs of the Air Force base and the governmental partner. The policy directive, Air Force Policy Directive 90-22, "Air Force Community Partnership Program," was signed July 24, 2014. This policy

⁵ U.S. Code, Title 10, Armed Forces, Subtitle A, General Military Law, Part IV, Service, Supply, and Procurement, Chapter 159, Real Property; Related Personal Property, and Lease of Non-Excess Property, Sec. 2667, Leases: Non-Excess Property of Military Departments and Defense Agencies.

directive and its companion document, Air Force Instruction 90-2201, provide implementation guidance for developing USAF installation-community partnerships that support USAF missions and airmen through shared value. It also outlines the roles and responsibilities of each of the relevant USAF offices.

Beginning in 2012, the USAF has had an aggressive program to help numerous installations implement more installation PuPs, often referred to as the public-public and public-private (P4) partnerships initiative. The Air Force process, coordinated through the AF Community Partnership Program Office, begins at the base level, where, through a series of workshops spearheaded by a “brokering team,” partnering opportunities are identified and outlined. During these exercises, a team of subject matter experts assist (where needed) in ensuring the necessary resources are identified and programmed, and the necessary agreements or contracts are established using existing authorities. Where necessary, they provide assistance in addressing implementation issues that may arise because of using a new authority. Typically, the tabletop exercise involves six or seven workshops from initiation (i.e., the “kick-off”) to completion (i.e., the “way ahead”) that take six to eight months to complete. The Air Force Community Partnership Program Office was facilitating the process at 18 installations in FYs 2012–2013, 24 in FY 2014, and nine by June of FY 2015 (see Table 4.2). The AF Community Partnership Program staff have also created a P4 web portal that includes valuable information on PuP projects that have been generating ideas and developing partnerships through this workshop process.

By June 2015, the Air Force had generated more than 1,000 partnership initiatives at 49 installations. Initiatives under consideration are in the areas of firing ranges; airport operations; emergency response training; medical training; environmental, energy and construction services; waste management; educational centers; and family support programs (such as library services, recreational programs, food service, and mail delivery).⁶

The AF Community Partnership Program has also developed an Opportunity Analysis process to “identify under-utilized facilities, infrastructure and real estate that may be leveraged to meet AF mission needs” by “mining” existing installation data (such as installation development plans, energy audits, and Encroachment Action Plans) and identifying gaps.⁷ This process focuses on identifying other potential installation partnerships (and other opportunities to save costs) by understanding what installation assets might be available.

The Army, on the other hand, is pursuing intergovernmental support agreements through headquarters policy and guidance coordinated by the Privatization and Partnerships Division, Installation Services Directorate, Office of the Assistant Chief of Staff for Installation Management (OACSIM) under the decisionmaking authority delegated to the Office of the Assistant Secretary of the Army for Installations, Energy and the Environment by the Secretary of the Army. In August 2013, the Army issued Execution Order (EXORD) 215-13 to provide guidance to installations pursuing intergovernmental support agreements (IGSAs) and to take stock of existing collaborations with communities. OACSIM staff also requested that installations submit information about existing partnerships with other public organizations, including a brief description of the partnership, partners, and what type of agreement was used. This Army survey provided useful information about existing installation PuPs, some of which have been

⁶ Steven Zander, “Talking Paper on the Air Force Community Partnership Program,” June 5, 2015.

⁷ U.S. Air Force, “AF Community Partnership Program: Opportunity Analysis (OA),” May 4, 2015.

Table 4.2
Locations Participating in the AF Community Partnership Program by Fiscal Year

FY 2012–2013	FY 2014	FY 2015
<ul style="list-style-type: none"> • Ellington Field Air National Guard (ANG), Tex. • Klamath Falls ANG, Ore. • Altus AFB, Okla. • Beale AFB, Calif. • Buckley AFB, Colo. • Ellsworth AFB, S.D. • Fairchild AFB, Wash. • Hill AFB, Utah • Joint Base Andrews, Maryland • Maxwell AFB, Ala. • Moody AFB, Ga. • Nellis AFB, Nev. • Patrick AFB, Fla. • Peterson AFB, Colo. • Robins AFB, Ga. • Seymour Johnson AFB, N.C. • Sheppard AFB, Tex. • Tinker AFB, Okla. 	<ul style="list-style-type: none"> • Cannon AFB, N.M. • Dyess AFB, Tex. • Eglin AFB, Fla. • Goodfellow AFB, Tex. • Grand Forks AFB, S.D. • Hanscom AFB, Mass. • Homestead Air Reserve Base, Fla. • Joint Base Langley-Eustis, Va. • Joint Base McGuire-Dix-Lakehurst, N.J. • Joint Base San Antonio, Tex. • Little Rock AFB, Ark. • MacDill AFB, Fla. • Malmstrom AFB, Mont. • McConnell AFB, Kan. • Offutt AFB, Neb. • Pittsburgh Air Reserve Station (ARS), Pa. • Scott AFB, Ill. • Travis AFB, Calif. • Tyndall AFB, Fla. • U.S. Air Force Academy, Colo. • Vandenburg AFB, Calif. • Westover ARB, Mass. • Wright-Patterson AFB, Ohio • Youngstown-Warren ARS, Ohio 	<ul style="list-style-type: none"> • Davis-Monthan AFB, Ariz. • Dover AFB, Del. • Eielson AFB, Alaska • FE Warren AFB, Wyo. • Joint Base Charleston, S.C. • Laughlin AFB, Tex. • Luke AFB, Ariz. • Mountain Home AFB, Ida. • Shaw AFB, S.C.

SOURCE: Zander, 2015.

NOTE: FY 2015 only includes installations participating by June 2015.

operating for many years, that other installations can use to help develop new partnerships. Nearly 250 existing partnerships, using a variety of authorities and agreements, were identified through this survey. A protected website has been established for sharing information on these partnership activities.⁸ In fall 2015, the Army developed a public website where Army installations, community organizations, and other potential partners could learn about Army PuPs.⁹

Headquarters Army Privatization and Partnerships Division has also assisted several installations in identifying high-value partnership opportunities, as well as those that are relatively easy to attain, through a series of four workshops. As of early 2014, more than 100 IGSA-type partnership opportunities have been suggested. As of October 2014, 14 Army locations were being considered under Sec. 331 and other partnering authorities for municipal service and related partnerships (see Table 4.3).

As part of the Army's IGSA process, the Headquarters Department of the Army (HQDA) level conducts a single review of the fully developed IGSA proposal and the associated business case. In addition, a short IGSA primer has been published online, and a couple draft partnership agreement templates have been developed for common partnership activities to make it easier to implement an IGSA agreement at an individual installation.

The first agreement between an Army installation and a local community using the 331 authority was signed on April 29, 2014, between the City of Fayetteville and Fort Bragg for

⁸ Privatization and Partnerships Division, Installation Services Directorate Office of the Assistant Chief of Staff for Installation Management "Intergovernmental Support Agreements Program Update," June 2014; Office of the Under Secretary of Defense for Acquisition, Technology and Logistics, "Report to Congress on the Implementation of Intergovernmental Support Agreement Legislation (Public Law 112-239)," October 2014.

⁹ For more information, see U.S. Army, "Partnerships," undated-e.

Table 4.3
Army Locations Being Considered for Section 331 and Related Partnerships

Army Locations	
Fort Belvoir, Va.	Fort Wainwright, Alaska
Fort Benning, Ga.	Joint Base Myer-Henderson Hall, Va.
Fort Bragg, N.C.	Natick Soldier Systems Center, Mass.
Fort Detrick, Md.	Presidio of Monterey, Calif.
Fort Hunter-Liggett, Calif.	Sunflower Army Ammunition Plant, Kan.
Fort Leonard Wood, Mo.	White Sands Missile Range, N.M.
Fort Riley, Kan.	Yuma Proving Ground, Ariz.

SOURCE: Office of the Under Secretary of Defense for Acquisition, Technology and Logistics, 2014.

custodial services at Fort Bragg's Airborne and Special Operations Museum. The new Sec. 331 authority also facilitated the contracting process between the Presidio of Monterey and Fort Ord, which have been working in partnership for decades.

The Navy regionalized its installation management some years ago, so additional economy-of-scale gains from intergovernmental cooperation may be more difficult to obtain. The Navy's regional approach to installation management also means Navy headquarters has been less involved in implementing Sec. 331. However, senior Navy leadership has issued guidance supportive of Navy installations using Sec. 331 for new installation and community partnerships, stating that this authority provides another tool to use in partnering with communities, like the authority provided by 10 U.S.C. Sec. 2684a for REPI partnerships. Senior leadership has also held a series of meetings with offices involved in installation support services (such as the regional offices, procurement, total force integration, financial management, and small business policy) to discuss the applicability of other laws and regulations when obtaining installation support services under 331 authority. Within the Navy, the regional offices and local installations are the primary parties responsible for pursuing partnerships under Sec. 331, but proposals must be submitted to the Department of the Navy (DoN) Secretariat for review and approval. The Marine Corps, on the other hand, has established a cross-functional working group under the Marine Corps Installations Command to determine how to implement agreements using this authority.

Since passage of Sec. 351 in NDAA 2015 has just occurred, it remains to be seen how all three Services will organize and implement the new legal authority.

Many Different Approaches Taken to Develop and Implement Installation PuPs

Installations and communities have taken many different approaches to develop and implement installation-community partnerships. As just discussed, some installation staff use official OSD and Service programs, such as implementing REPI and UESC projects, while others are more informal and may develop out of an ongoing trusting relationship with the community. Often, the nature of the need and functional or service area determines which types of approach might be best. For example, if installation staff need help with investing in large-scale, capital-intensive energy efficiency technologies, they would turn to a UESC or ESPC with a formal contract, while if they want to do an educational program with a local school,

they may use a basic memorandum of agreement (MOA) or memorandum of understanding (MOU) agreement—or take an even more informal approach, with no written agreement. An informal approach to the partnership, especially when no payments are made between partners, often does not have a formal written agreement. This is often the case for joint activities and events where the partners just agree to contribute their individual personnel and other resources to help at the event. An example of a partnership that did not have any written agreement that was mentioned earlier was Ellsworth AFB working with various community and other military organizations to create a Community Event for Women's History Month.

For installation partnerships that involve a written agreement, different agreement types may apply, based on the purpose and content of the agreement. The PuP may be implemented with a contract, lease, mutual aid agreement (MAA), MOA, MOU, CRADA, or other type of agreement document. A formal contract is often used in fee-for-service agreements. A lease is often used when a community or other partner is using installation land or other facility, such as with EUL deals. An MAA is used for sharing resources for mutual aid, such as sharing fire, medical, police, and security personnel during an emergency situation. An MOA is used for sharing resources for mutual benefit, often when no or only small amounts of payments are made by one of the partners, such as sharing of emergency medical resources, coordinating airspace, sharing shooting ranges, and cooperation in preventing and addressing domestic violence. MOAs have been used for the community to provide a wide range of different services to an installation, including jail services, swimming lessons and other activities for military children, wastewater treatment, traffic signal maintenance, grounds maintenance, exploration of geothermal resource potential, environmental species monitoring, emergency bus transportation, and bomb squad support. Similarly, MOUs have been used for installations to collaborate with communities in ecosystem and watershed management and to share personnel and facilities, such as Special Weapons and Tactics (SWAT) teams and athletic fields. MOUs are also used to acquire services from community partners, such as providing college classes on the installation and stray animal adoption services.

An important part of deciding what type of agreement to use for an installation partnership is identifying the appropriate authority or authorities that allow the military installation to enter into the partnership. Obviously, Sec. 331 of 10 U.S.C. Sec. 2336 gives military installations and local and state governments new authority to enter into partnership agreements for a wide range of installation support services. However, long before the passage of Sec. 331, military installations have had many different authorities that can be and have been used to develop and implement installation PuPs. Many times, multiple authorities are referenced in the agreement of an installation partnership. Many PuP agreements also reference DoD Instruction (DoDI) 4000.19, not for authority, but to provide procedural information regarding MOAs and MOUs.¹⁰ The agreements may reference other DoD, federal, and/or Service policy and guidance documents for authority including Service regulations, executive orders, and presidential decision directives. For example, an Army installation that was partnering regarding sharing SWAT resources referenced DoDI 4000.19, an Army Regulation, and other authorities in its MOU:

- DoDI 4000.19, "Interservice and Intragovernmental Support," August 9, 1995
- Presidential Decision Directive 39, "US Policy on Counterterrorism," June 21, 1995

¹⁰ DoD, 1995.

- AR 525-13, “Military Operations, Antiterrorism,” January 4, 2002
- C 19-61, “Countering Terrorism on US Military Installations,” April 1983.

Often the authority used may be because of the functional area and focus of the agreement. Thus, environmental agreements have referenced environmental policy and requirements, such as Executive Order 11514, “Protection and Enhancement of Environmental Quality,” March 5, 1970, and the “National Environmental Policy Act” of 1969. The PuP agreements also may reference only a Service document. For example, Hill AFB partnered with the Davis Area Convention and Visitors Bureau and the Ogden/Weber Convention and Visitors Bureau so the community could provide commercial lodging/hotel rooms for base visitors at a discounted rate. The authority used for this commercial lodging PuP was Air Force Instruction (AFI) 34-246.¹¹ In other cases, the authorities used for the PuP agreement could include state authorities. For example, Fort Bliss partnered with the State of New Mexico regarding cultural resources data-sharing, and this PuP used federal and state authorities for the partnership (see Box 4.5).

How a partnership is initiated also varies. Some partnerships are driven top down from Service headquarters, while others are from the installation commander level or from the functional staff level. Some partnerships are community, regional, and state driven. We discuss these next.

Box 4.5. Fort Bliss Cultural Resources Data Sharing Partnership with the State of New Mexico

Fort Bliss is a large testing and training Army post that consists of about 1,700 square miles in Texas and New Mexico. It is rich in Native American historic sites and has a strong cultural resources program that collects and maintains a large amount of data. As of September 2006, about 1,700 archaeological sites had been identified, and 850 of them (plus 485 buildings and structures) had been identified or eligible for listing in the National Register of Historic Places.^a Fort Bliss has partnered with the State of New Mexico Archaeological Records Management Section (ARMS) for the sharing of the post’s cultural resources data. ARMS maintains an inventory of cultural properties within the New Mexico Cultural Resource Information System (NMCRIS), an automated computer system.

With this partnership, ARMS is including Fort Bliss cultural resources data and information in NMCRIS and in its statewide geographic information system (GIS). The State of New Mexico will also provide statewide cultural resource information from NMCRIS to Fort Bliss and allow Fort Bliss cultural resource personnel access to the NMCRIS database to conduct interactive queries. Fort Bliss submits its cultural resources data and archaeological reports to be entered into NMCRIS by ARMS. Beginning in fiscal year 2014, if available, Fort Bliss was to provide annual funds up to \$25,000 to ARMS “solely to the actual necessary cost and expenses of maintenance and expansion of NMCRIS, including both direct and overhead costs”^b for Bliss data and information. The memorandum of agreement (MOA) for this partnership reflects ongoing federal budget concerns because it also states, “This level of funding is contingent on appropriations from Congress. In any given year, should congressional appropriations be reduced significantly, funds provided to NMCRIS may have to be reduced.”^c

This MOA mentions three authorities for the agreement: the National Historic Preservation Act (NHPA) of 1966, the New Mexico Cultural Properties Act of 1969, and the NMCRIS User’s Guide.

^a Fort Bliss, “Fort Bliss Integrated Cultural Resources Management Plan 2008–2012,” April 7, 2008.

^b Fort Bliss, “MOA Between State of New Mexico Historical Preservation Division and HQ, USAG Fort Bliss, Texas, for Management of Cultural Resource Information Agreement,” January 14, 2014.

^c Fort Bliss, 2014, p.3.

¹¹ For more details, see: USAF, Air Force Instruction 34-246, “Air Force Lodging Program,” Commercial Lodging, March 11, 2014a, para. 1, p. 14.

Community, Regional, and State Facilitators in Developing Installation Partnerships

Many local, state, and regional governments and organizations have been active in helping installations develop partnerships with communities, including both public and private organizations. States have created defense alliances, such as the Florida Defense Alliance and the Utah Defense Alliance, and military support offices, such as the State of Connecticut Office of Military Affairs (OMA), to help support the defense industry, military installations, and military personnel and their families within their states. At the local and regional level, counties and cities have created local and regional organizations to support an installation or multiple installations within a region, such as the Hampton Roads Military and Federal Facilities Alliance (HRMFFA) and the Fort Drum Regional Liaison Organization.¹² For instance, “The mission of HRMFFA is to attract, retain and grow military and federal facilities across the region for the common good and welfare of the residents of Hampton Roads.”¹³

Many of these community and state groups were motivated by wanting to help the military and support servicemen and servicewomen and their families—and for economic reasons: i.e., to help the economy in their states and communities. Many have also been driven because of concerns over past and potential future Base Realignment and Closure (BRAC) rounds and wanting to help installations become more efficient and effective so they will not be closed in a future BRAC round. For instance, the mission of the Florida Defense Alliance created in 1998 is to promote installation efficiencies and to further military missions in Florida, while supporting military families’ quality of life.¹⁴ In fact, some of these organizations were originally created to deal with previous BRAC impacts, both growth and losses at installations, with some limited grant funding from the OSD Office of Economic Adjustment (OEA). For instance, the South Sound Military and Communities Partnership and the Fort Meade Regional Growth Management Committee were created to deal with 2005 BRAC growth near Joint Base Lewis-McChord (JBLM) in Washington and Fort Meade in Maryland, respectively.¹⁵

In many cases, such organizations are a driving force and champion for multiple partnerships at an installation. For instance, staff at the Fort Meade Regional Growth Management Committee and Howard County Mission Growth/BRAC Office have helped facilitate a range of different partnerships at Fort Meade. Staff played a key role in linking community and private companies with installation staff to develop partnerships for mutual benefit. Three different partnerships are presented to illustrate this point. First, staff from the Howard County Mission Growth/BRAC Office helped develop a partnership between Fort Meade and a homeowner’s association regarding swimming pool use when Fort Meade’s pool was temporarily closed. The staff learned that the Columbia Association had excess capacity with ten underutilized swimming pools and helped facilitate a partnership with Fort Meade. Fort Meade partnered with the Columbia Association to allow military, DoD civilians, retirees, and their families the use of the homeowner’s association’s pools at a greatly discounted price. Second,

¹² For more information, see Fort Drum Regional Liaison Organization, “About FDRLO,” undated.

¹³ Hampton Roads Military and Federal Facilities Alliance, “The Hampton Roads Military and Federal Facilities Alliance,” undated.

¹⁴ Florida Defense Alliance, “Florida Defense Alliance,” 2013.

¹⁵ South Sound Military and Communities Partnership, “About,” 2012. OEA funding is finite, provided for several years to help with the BRAC adjustment. Once the OEA funding disappears, such organizations have to find other funding, such as from local governments, the state, industry, or taxes. Some have made this successful transition and found stable funding, while others are still struggling with finding a sustainable long-term funding source.

staff from the Howard County Mission Growth/BRAC Office found volunteers to work at the Fort Meade Tax Assistance Center, which provides free income tax assistance, preparation, and filing for all active-duty service members, retirees, and family members in the Fort Meade area. Third, as discussed earlier in this report, the Howard County Mission Growth/BRAC Office was a facilitator in the reclaimed water partnership between Howard County and the National Security Agency at Fort Meade (see Box 3.3).

States have also been instrumental in creating partnerships at military installations, including helping to fund infrastructure. For example, the State of Connecticut provided around \$11 million to help build new training facilities and other infrastructure at Naval Submarine Base New London (NAVSUBASE). The State of Connecticut OMA has played a key facilitator role in helping to develop such partnerships. Another NAVSUBASE partnership example is that OMA worked with regional leaders, and the Military Superintendent's Liaison Committee to make charter and magnet schools available to military families who did not meet the residency requirements. The state of Maryland has also helped facilitate installation partnerships by producing guidance documents to help local communities and installations develop partnerships. In 2003 and 2014, the Maryland Department of Business and Economic Development published reference guides for partnering with military installations.¹⁶

Many Different Types of Partner Organizations Are Involved in Installation Partnerships

We found that a diverse range of partner organizations are participating in partnerships with military installations. Installations partner with local, state, and federal agencies, and with nonprofits, for-profits, and even private individuals. In this section, we provide a brief overview of these many different partners. Our emphasis is on the public partners, because PuPs were the main focus of our research. Before this discussion, we present a table that illustrates some of the different partner organizations (see Table 4.4). While the table reflects our primary focus on public partners, it also includes nonprofit organizations, since they are often overlooked in partnership discussions and play an important role in installation partnerships besides public and for-profit private organizations.

Local government partners. Military installations have partnered with cities, towns, counties, and townships across the United States. These partnerships involve elected officials (such as mayors and city councils) and local government personnel, from city managers to public works staff. Municipal partnerships are often with agencies that perform similar public and management functions as military installations, such as fire departments, Department of Public Works, police departments, schools, social services, recreation and parks departments, libraries, utilities, and transportation agencies. Economic development agencies, such as the local chamber of commerce, are also important partners that often focus on an installation staying as active as possible in the area because of the jobs it brings to the region. Table 4.4 provides some examples of local government partners.

State and regional government partners. Military installations have also partnered with many different types of state agencies and regional government organizations. State partners also tend to be with agencies that perform similar public and management functions as installations, including natural resources, parks, environmental management, police, transportation, historical preservation, and social services. State government organizations become

¹⁶ For more information, see Maryland Department of Business and Economic Development, "A Maryland Partnership Guide for Military Facilities," 2003; Maryland Department of Business and Economic Development, 2014.

Table 4.4
Illustrative Examples of Installation Partners

Local Government Organizations	State and Regional Government Organizations	Other Federal Agencies and Tribes	Nonprofit Organizations
<ul style="list-style-type: none"> Augusta Utilities, Ga. Boonton Township, N.J. Borough of Carlisle, Pa. Churchill County, Nev. City of Annapolis Recreation and Parks Department, Md. City of Beaufort, S.C. City of Omaha, Neb. City of Rosemount, Minn. El Paso County School District, Colo. El Paso County Tax Office, Tex. El Paso International Airport, Tex. El Paso Water Utilities, Tex. Harford County Office on Mental Health, Md. Houston County Library, Ga. Howard County Department of Public Works, Md. Jefferson County Office of Fire and Emergency Management, N.Y. Jefferson County Department of Social Services, N.Y. Montgomery Area Chamber of Commerce, Ala. Morris County Sheriff's Office, N.J. North Star Borough School District, Alaska Ogden/Weber Convention and Visitors Bureau, Utah Pennyrile Rural Electric Cooperative Corporation, Ky. Prince George's County, Md. Pueblo County Sheriff's Office, Colo. San Diego Gas and Electric, Calif. Scottsdale Healthcare, Ariz. Solicitor General's Office of Muscogee County, Ga. Spring Lake Police Department, N.C. Town of Highlands, N.Y. 	<ul style="list-style-type: none"> Colorado Department of Corrections Colorado Department of Transportation Committee for Prevention of Child Abuse of Sierra Vista, Ariz. Eastern Connecticut Chamber of Commerce El Paso Biowatch Advisory Committee, Tex. Florida Department of Environmental Protection Florida Fish and Wildlife Commission Florida Office of Greenways and Trails Hampton Roads Sanitation District, Va. Kentucky Forest Service Lowcountry Council of Governments, S.C. Maryland Department of Labor Mission La Purisima State Park, Calif. N.C. State Highway Patrol N.Y. State Police S.C. Department of Health and Environmental Control S.C. Department of Social Services S.D. Center for Enterprise Opportunity State of Connecticut Office of Military Affairs State of Hawaii State of New Mexico Archaeological Records Management Section Texas Commission on Environmental Quality Washington Trade and Economic Development Division 	<ul style="list-style-type: none"> Bureau of Land Management Channel Islands National Marine Sanctuary Comanche Indian Nation Department of Defense Department of Energy Department of Homeland Security Environmental Protection Agency Federal Aviation Administration Federal Emergency Management Agency Federal Bureau of Investigation National Oceanic and Atmospheric Administration National Institutes of Health National Park Service National Security Agency Small Business Administration Tennessee Valley Authority United States Coast Guard U.S. Department of Agriculture–Natural Resources Conservation Service U.S. Federal Penitentiary U.S. Fish and Wildlife Service U.S. Forest Service Veterans Affairs Western Power Administration 	<ul style="list-style-type: none"> 4-H Alabama Community College System American Red Cross Antelope Valley College Boys and Girls Clubs of America Boy and Girl Scouts of America The Conservation Fund Cornell Cooperative Extension of Jefferson County Crisis Center of Russell County Ducks Unlimited Fort Stewart Historic Communities Council Goodwill Industries Habitat for Humanity Jefferson Community College Massachusetts Institute of Technology Maturango Museum Mothers Against Drunk Driving The Nature Conservancy Pastoral Institute Red Rock Audubon Society San Diego Zoo Institute for Conservation Research State University of New York The Trust for Public Land University of New Mexico University of Washington Center for Conservation Biology Upper Rio Grande Workforce Development Board Walden Sierra Wholesome Waves W. K. Kellogg Foundation YMCA

more involved in installation partnerships that focus on strategic regional issues when they have a direct state presence in the community (such as an office or a park), or are involved in a project that relates to the installation, such as sharing historical data. Regional government organizations are official government organizations that cover a region with multiple cities and counties in it, such as organizations that focus on an urban region's growth, transportation, or natural resources, or ones that involve multiple states, such as ones that deal with watershed or urban planning in areas that cross state boundaries. Table 4.4 provides some examples of state and regional government partners.

Federal government partners. Many other federal agencies have also developed partnerships with military installations. Installations partner with other defense and intelligence agencies; for example, other Services are common partners. Other federal partnership partners tend to be with agencies that have similar responsibilities and management functions as installations and a need to address similar public issues. Such areas include national security, safety, natural resources, environmental management, transportation, land management, historical preservation, and energy. Table 4.4 provides some examples of federal government partners. Installation partners also include some Native American tribes.

We should note that the Services' installations have also partnered with foreign government agencies when there is a U.S. military installation in that country, such as U.S. Army Garrison Yongsan, South Korea, partnering with the Republic of Korea Ministry of National Defense.

Nonprofit organizations as partners. Military installations have also partnered with diverse nonprofit organizations. Such partners often have a public mission to help in areas such as education, research, environmental issues, land preservation, health care, children's issues, and social services. For example, nonprofit universities, colleges, and hospitals are common partners with installations. Activities to address growth, land use, encroachment, and environmental concerns, such as REPI partnerships,¹⁷ involve a wide range of nonprofits, including national, state, and local land trusts, conservation groups, and environmental organizations. In addition, many nonprofit organizations that want to help military personnel and their families have partnered with installations; some are even dedicated to such a purpose. Table 4.4 provides examples.

For-profit organizations as partners. Military installations also partner with for-profit companies. Sometimes privatization, outsourcing, and other contracts with private companies function more like partnerships because of the type of relationship between the company and the installation. Such private companies can include some solar and wind developers, energy service companies, for-profit water and energy utilities, housing and lodging companies, and other companies that consider the military installation needs besides their own bottom lines. For example, as discussed in Chapter Three, Fort Carson has a public-private partnership with the for-profit firm United Association to provide welding apprenticeship training and subsequent job placement for transitioning soldiers. Private individuals also have been installation partners, often when they want to help out the installation and/or a common public good, such as for biodiversity conservation. For instance, Eglin AFB has partnered with the Nokuse Plantation, which is a 53,000-acre privately funded nature preserve and conservation activity that was conceptualized and funded by M.C. Davis and Sam Shine, key partners in conservation buffering at Eglin AFB.

¹⁷ For a list of more than 150 REPI nonprofit, governmental, and other partners, see REPI, "REPI Partners," undated.

Diverse Installation PuPs Based on the Partners' Objectives

We found that there are many different reasons and ways that installation PuPs are created, based on the different partner objectives and types of benefits received. Most partnerships can be grouped into one of four objective categories: partners share the same ultimate objectives and benefits; partners have mutual synergy in objectives and receive different benefits; partnership objective is mostly focused on helping the military installation; and partnership objective is mostly focused on helping the community.

The last two categories are when it appears that the PuP benefits do not seem equal—where the installation is mostly receiving help from the community or the community mostly receives help from the installation. These partnerships may appear one-sided; however, that is usually not the case because both partners see the deals as mutually beneficial. Many times, they are not one one-sided because the partner may receive benefit in a different partnership arrangement. In some cases, the community or installation sees the importance of being a good neighbor or the importance of the broader community and national benefits as benefit enough for their investment in the partnership.

Partners Share the Same Ultimate Objectives and Benefits

Some PuPs are mutually beneficial, with the same ultimate objective for both partners; i.e., partners share a common goal and receive similar benefits from the partnership. The most common PuP example of this type is collaboration for emergency response. Installations and local, state, and other federal fire, emergency medical service, police, and security agencies have a common goal and need to improve local and regional response to fires, natural disasters, large-scale accidents, terrorist attacks, and other emergency situations. For example, in the Colorado Springs area, the USAF Academy, Fort Carson, Peterson AFB, the USDA Forest Service (FS), Colorado State FS, Colorado Springs Fire Department (FD), Cheyenne Mountain FD, Manitou Springs FD, and other government fire departments have a common objective to train and fight wildfires. Often these types of partnerships improve an overarching service or function, such as overall emergency response, security, STEM activities, community health, and/or environmental quality. For example, the Fort Drum military-civilian regional health care partnership discussed in Chapter Three (see Box 3.13) is a case where the community members and installation leadership and staff have the common goal of wanting to improve regional health care resources which benefited both the military and civilian populations. Similarly, the regional ecosystem partnerships of Eglin AFB in the Gulf Coastal Plain Ecosystem Partnership (see Box 2.1) and Fort Carson in the Central Shortgrass Prairie Ecoregion Partnership (see Box 3.16) discussed in previous chapters are examples of partnerships that experience the same objectives and benefits, helping to preserve and enhance the regional ecosystems. The goal and partnership need not be for a large regional area; it may cover a smaller, more local area. For example, Naval Support Facility Carderock in Maryland has common goals with Montgomery County Public Schools to enhance local STEM education. These partners have an EPA whereby the installation hosts weeklong STEM teacher training for elementary, middle, and high school teachers and provides STEM mentors to the schools.¹⁸

¹⁸ Maryland Department of Business and Economic Development, 2014, p. 59.

Some of these same objective PuPs are more narrowly focused when they are created to share construction and/or operational costs of a shared installation facility or infrastructure. For example, the Minnesota Army National Guard (MNARNG) has partnered with local communities to build and share joint multipurpose centers called Training and Community Centers (see Box 4.6). Similarly, U.S. Army Garrison Yongsan, South Korea, and the Republic of Korea Combined Forces Command have an MOA to build, operate, and maintain a Service Support Facility together.

Box 4.6. Minnesota National Guard Training And Community Center Partnerships

Throughout the state of Minnesota, the Minnesota Army National Guard (MNARNG) has combined Readiness Centers with local community centers to create Training And Community Centers (TACCs). There are ten TACCs in Minnesota. These multipurpose complexes are designed, financed, built and shared by federal, state, and local governments. For the basic facility construction, 75 percent of the cost is paid by the National Guard, 12.5 percent by the state, and 12.5 percent by local government. A TACC usually includes Guard-only space, community-only space and shared space—such as the drill floor, which is often used by the community as a gym. A community may enhance or add to the basic structure of the facility, such as enlarging the drill space to make it a full-fledged gym with basketball, volleyball, and running track capabilities; installing central air conditioning; adding an ice skating arena; and carpeting the floors. If the enhancements benefit both the Guard and the community, costs are split 50-50; otherwise, whichever party stands to benefit pays for it. To illustrate the range of facilities within a TACC, consider the Rosemount Community Center. This TACC includes a banquet room, auditorium, climate-controlled gym, kitchen, multipurpose arena, seasonal indoor ice-skating rink, classrooms, and National Guard–unique spaces, such as a weapons vault, offices, and a supply/storage area.

The state and local governments fund their shares of the TACC construction costs by the sale of bonds. Once the bonds are paid off, the TACC is owned by the MNARNG, which pays the utilities and maintenance costs, and the community leases its space.^a It often subleases parts of the facility, such as an auditorium or banquet room, to recoup the costs. The other operating costs may be shared by the Guard and the community or paid entirely by the community. The community usually manages the facility and its schedule, which frees Guard staff of those tasks.

TACCs provide numerous benefits to both partners. Both enjoy more-frequent interactions, which helps the MNARNG with its recruiting and community relations. The community participates more in Guard events, such as soldiers' homecomings, and the ongoing contact between Guard soldiers and the community in the TACC helps educate young people about the National Guard, which is likely why the state has such a high recruiting rate. Other benefits for the MNARNG include saving costs, access to additional facilities and amenities (from the enhancements), and freeing up staff to focus on the mission (because the community operates the TACC). The community also saves costs and has access to additional facilities and amenities. The TACCs also provide economic benefits to the community. For example, there were 270 people assigned to the Inver Grove Heights TACC in 2008, and "the community got close to \$2.35 million in additional economic impact" because of this TACC.^b

Such TACCs take more time, effort, and people skills to create and manage the shared facilities and working relationships, especially given the need to coordinate competing activities at the facilities and to manage the expectations of the multiple users. However, the benefits far outweigh these and other challenges in developing, implementing, and using these joint-use centers.

SOURCES: Army National Guard, "How Minnesota Did It and How You Can, Too," *Foundations of Readiness*, 2009a; Army National Guard, "The Minnesota Model: What It Is and Why You Should Adopt It," *Foundations of Readiness*, 2009b.

^a Prior to the bonds being paid off, the TACC is owned by the Minnesota State Army Building Commission, a statutory public corporation.

^b Army National Guard, 2009a.

Partners Have Mutual Synergy in Objectives and Receive Different Benefits

In some PuPs, the objectives are mutually synergistic and the partners receive different types of benefits from the partnership deal. These partnerships often take advantage of the different strengths and capabilities of the two partners. For example, in university partnerships, installations take advantage of library, medical, and research student interns that help improve installations services and missions, while the universities benefit by the installations providing the college students with on-the-job training and skills.

Besides student manpower, this type of PuP may also involve the exchange of services, facilities, or both. A common example is the installation providing free office space on site to a community organization providing a service to the military, such as classes for military members and their families. For example, Grand Forks AFB has a partnership agreement with the University of Mary to provide courses and a master's program on the base to airmen and their families, and the base provides them with the space to offer such services. Similarly, Fort Bliss partnered with the nonprofit Upper Rio Grande Workforce Development Board, which provides an on-post workforce center for military spouses and family members to help them find jobs. Fort Bliss provides free office space in exchange for this free service.

Often, such partnerships involve exchanging services in the same functional area based on where the partners have complementary excess capacity, needs, and strengths, such as exchanging different recreational or Morale, Welfare and Recreation (MWR) services. For instance, Picatinny Arsenal has a partnership with Rockaway Township, N.J., regarding MWR services. In this arrangement, community members may use the installation athletic fields and aquatic park and have Picatinny Family and MWR membership. In exchange, residents of the military housing area at Picatinny may use the Rockaway Township Public Library. Picatinny Arsenal had excess capacity at the aquatic park and needed additional paying customers to help pay for this facility, while it also needed library services for military personnel and their families.¹⁹

Another common PuP of this type is when one partner receives a service or access to a facility in return for monetary or in-kind payment. For instance, a community provides a service to the military installation for a payment with a formal contract. Such partnerships are designed to save an installation money. They may be sole-source or competitive bid contracts. Examples of such contracts are the Presidio Municipal Services Agency in California (established by the Cities of Monterey and Seaside), which contracts to provide municipal services to the Presidio of Monterey (see the appendix of this report); and the Naval Station Great Lakes in Illinois, which contracts with Goodwill Industries to provide laundry, food, and other services to the installation (see Box 2.3). The City of Sierra Vista in Arizona has a partnership to provide refuse pick-up for Fort Huachuca after winning a competitive bid for this contract. UESCs, such as those between Fort Knox and Nolin RECC (see Box 4.3), and energy savings performance contracts (ESCPs) are also examples of this type of partnership since the partner receives a payment in return for providing a service to the installation. Communities also pay installations for the use of their facilities, land, or other assets, or for providing a service to the community partner. An in-kind payment example occurs with a joint-use airport and EUL deal at Eglin AFB in Florida. Okaloosa County is leasing part of Eglin for a commercial airport in exchange for more than \$318,000 a year in in-kind considerations for Eglin AFB.

¹⁹ Picatinny Arsenal, "Addendum Renewing the MOU Between Rockaway Township and Picatinny Arsenal on Community Partnership," June 29, 2010.

There are all types of partnerships where the partners exchange different types of services for different objectives. We illustrate with three PuP examples from Fort Meade, Vandenberg AFB, and with Navy medical personnel from the Lovell Federal Health Care Center (FHCC) in Illinois. The objectives of and benefits for each partner are different in the partnership at Fort Meade between Howard County and the National Security Agency (NSA) to provide reclaimed water for cooling needs at NSA's new 600,000-square-foot computer center (see Box 3.3 in Chapter Three). NSA wanted a secure, clean water source that was cheaper than tap water. The county wanted to reduce the amount of treated wastewater it discharged into the river and Chesapeake Bay so the county could stay below its discharge limit, which also helped lift development restrictions the county faced from wastewater discharge limits. The county also receives payments for its wastewater from this deal. As also discussed in Chapter Three, Vandenberg partnered with a California state park, Mission La Purisima State Park, and wanted park staff help to manage and thin out overgrown tule reed and willow stands along the shores of the base's Pine Lakes recreation area. The park staff wanted to use the reed materials from the base thinning process to construct a Chumash Native American tule hut using traditional materials and methods.²⁰ The state park's objectives focused on acquiring tule materials and enhancing its cultural resource and educational assets, while the base's objective focused on managing natural resources and enhancing a recreational area and its fishing habitat. Our third example has to do with Navy personnel receiving medical training in a civilian hospital while the community gains emergency room personnel to help treat patients. Through a partnership between Stroger Hospital, Cook County, Illinois, and the Lovell Federal Health Care Center in North Chicago, Navy medical personnel train and work in this inner-city hospital trauma unit gaining real-world experience with gunshot wounds while the county gains extra medical staff. In addition, the "hospital staff also benefit from the knowledge of those who have seen and treated war zone injuries firsthand."²¹

Partnership Objective Is Mostly Focused on Helping the Military Installation

There are numerous circumstances where the installation seemed to be mostly receiving help from the community without the community expecting anything in return in a given PuP. Many communities want to show support for servicemen and servicewomen and their families. In addition, communities often help an installation to try to prevent it from being closed in the next BRAC round, even though there are no guarantees that the partnership activities could prevent a closure. As a Maryland military installation partnership guide states, "what will be most effective" in preventing an installation from being closed in the next BRAC round is "a demonstrable record" of installation "partnering to reduce costs and expand capabilities."²²

In many cases, the community provides extra capacity to the installation for a special circumstance, such as during an emergency or when servicemen return home from a deployment. The example where a state police helicopter responds to reports of criminal activity on the installation when installation staff request help illustrates how an installation relies on the state for specialized criminal response capability. The community also may provide a skill,

²⁰ OSD, 2011.

²¹ Geoff Ziegulewicz, "Navy Corpsmen Sharpen Skills at Stroger," *Chicago Tribune*, June 27, 2014; Don Babwin, "Chicago Hospital Trains Navy Doctors for Battle," AP News, September 4, 2014.

²² Maryland Department of Business and Economic Development, 2003, p. 5.

expertise, facility, and/or infrastructure that the installation lacks. Often the installation does not have the demand to warrant a full-time employee or pay for the equipment or infrastructure to provide the service. In such cases, the installation saves money by not having to invest in the extra people, skills, equipment, or infrastructure. To illustrate, we provide a recreation, medical training, religious services, and environmental example from an installation for each of the four Services respectively: Air Force, Army, Navy, and Marine Corps. At Maxwell AFB, the Montgomery Area Chamber of Commerce Foundation is leading a communitywide effort to fund and build the River Region Freedom Park, a \$500,000 recreational park on base for military families (see Box 3.9 in Chapter Three). This example also illustrates a case where community partners indirectly benefit by feeling good about helping out military personnel and their families. At Fort Lee, Va., the City of Hopewell provides specialized training of Military Preventive Medicine Specialists on the procedures used by the Hopewell Regional Wastewater Treatment Facility. Naval Air Facility El Centro in California had a shortage of Catholic priests, so this base partnered with two Catholic churches—St. Mary El Centro and St Margaret Mary in Brawley—so that the base's sailors and their families were aware of Catholic services at these churches and referred to them by Navy sources. Camp Pendleton receives environmental help from the San Diego Zoo Institute for Conservation Research in monitoring and studying the Pacific pocket mouse, a threatened and endangered species (see Box 3.5). These four diverse examples illustrate a sample of the types of skills and expertise, infrastructure, and facilities that are provided and the community help that may be provided on or off the installation. The first example also shows how sometimes the community even helps to build a facility on the installation.

Smaller installations tend to rely more on nearby communities to provide help in installation services, but there also are PuPs cases with larger installations when specialized expertise is needed and for surge situations. For instance, smaller installations rely more on the local community for police, emergency response, and other public safety help because they lack the manpower, equipment, and infrastructure. An example occurs at Naval Support Activity Bethesda in Maryland, where the Montgomery County Police Department provides traffic enforcement for special events. Larger installations often have mutual aid agreements for large incidents when one of the partners cannot handle the incident alone or for specialized help and expertise from the community for emergency response, such as installations receiving SWAT team help. Another area where large installations may rely on help from communities is for selected social services, such as foster care services and safe housing for domestic violence victims, as Fort Benning does (see Box 3.12). As was discussed in Chapter Two, many communities have strengths in certain areas, such as social services and security, that installations take advantage of in PuPs.

Partnership Objective Is Mostly Focused on Helping the Community

There are many circumstances when the community seemed to be mostly receiving help from an installation. Similarly, such PuPs occur when the installation provides a service or has a capability or facility that the community lacks or when the community needs extra capacity. Common examples include the use of installation recreation facilities and installation personnel, and servicemen and servicewomen providing technical expertise to help in the community, such as in schools. We illustrate with several different examples. For example, in South Carolina, personnel from the University of South Carolina use the Fort Jackson parade field for their cross-country track meets; in Florida, the surrounding community uses the trail

established around NAS Whiting Field; and in Maryland, Hartford County's bowling league for special-needs children uses the Aberdeen Proving Ground (APG) Bowling Center. In a partnership between Eglin AFB and the Okaloosa School Board, base technical personnel help in STEM and medical education at a local middle school. In Kitsap County in Washington, volunteer divers from the Naval Undersea Warfare Center, Puget Sound Naval Shipyard, and commands within Navy Region Northwest helped in an underwater remotely operated vehicle competition at a local high school (see Box 3.8). At APG, the Better Opportunities for Single Soldiers (BOSS) program has partnered with the community for single soldiers to help in Habitat for Humanity projects and playing baseball with children of the League of Dreams. In several of these examples, military personnel also benefit indirectly by feeling good about helping out children in the community. Such partnerships also help to strengthen military and community ties.

Communities also take advantage of installation special equipment and expertise, such as using the installation's heavy equipment vehicle wash rack to wash city heavy-duty vehicles and the community relying on an installation's Explosive Ordnance Disposal (EOD) Unit on suspected explosive calls. For example, at NAS Fallon in Nevada, the base's five-man Explosive Ordnance Disposal Unit assists local and federal official on suspected explosive calls.

In addition, such PuPs also occur when the community may need land for a facility or infrastructure in a key location on the installation. For example, Fort Belvoir has partnered with Fairfax County in Virginia to provide the county-run Eleanor U. Kennedy Shelter on the installation. Again, installation personnel involved in such partnerships may indirectly benefit by feeling good from helping out the community.

Wide Range of Benefits from Installation Partnerships

We found many different types of benefits from installation partnerships. Installation public-to-public partnership (PuPs) improve services, reduce costs, and provide other benefits to the military and communities. Installations and community partners experience many similar benefits, but also some diverse ones. In this chapter, we provide an overview of the benefits that installations receive through PuPs, then an overview of the benefits that communities receive. In these overviews, we also include many partnership examples to provide illustrative details to help other installations and communities learn from these partnership experiences. Even though some of the benefits are similar for installations and communities, we chose to explain them separately so people reading this document could focus on the section most relevant for their organization type and we could highlight the full range of benefits for each group.

First, however, we illustrate that many different benefits can be realized by one type of partnership, such as installation activities to prevent installation encroachment and focus on compatible development. Table 5.1 provides a sample of the benefits for both the installation and community from Fort Carson's Army Compatible Use Buffering (ACUB) partnership activities to address encroachment concerns in Colorado (see Box 3.16) These benefits come from multiple partnerships. We will refer back to this table throughout the rest of this chapter. We will also refer back to some of the installation examples discussed in previous chapters, as well as including some new ones.

Installation Benefits from PuPs

Installations experience a diverse set of benefits from installation PuPs. For discussion purposes, we have grouped these benefits into eight categories:

1. cost savings, earnings, and cost avoidance
2. improved military mission
3. improved installation operations, facilities, infrastructure, workforce, and services
4. improved strategic regional collaboration
5. access to additional capacity in resources, skills, expertise, facilities, and infrastructure
6. improved government and community relationships
7. enhanced outreach to military personnel and their families
8. energy and environmental benefits.

We briefly discuss each area below.

Table 5.1
Sample Benefits from Fort Carson's Army Compatible Use Buffering Partnerships

Benefit Category	Sample Benefits
Promoting military readiness and other mission benefits	<ul style="list-style-type: none"> Protects the perimeter of the installation from ambient light, which helps with night training Enables low-level flight training over the southern part of the installation Minimizes the amount of impact to surrounding communities and thereby minimizes having neighbors complain about noise, smoke, etc. Helps protect joint use and training Military mission is safer with less development near safety zones Minimizes the risk of wildfires from installation training spreading to and affecting nearby homes Installation management deals with only a few landowners as neighbors Provides operational flexibility from protecting wildlife in conservation easements
Addressing sprawl and limiting other incompatible land use	<ul style="list-style-type: none"> Prevents high-density development in a 5-mile strip for 1.5 miles east of the installation Prevented an additional 250 new houses from being built next to the eastern fence line Helps protect open space east and south of Fort Carson Helps prevent Pueblo West suburban sprawl from spreading to the southern part of the post Helps provide a buffer between Colorado Springs and Pueblo so that they do not combine to become one large suburban area Has helped local governments become more interested in protecting open space and managing growth
Preserving habitat and other environmental benefits	<ul style="list-style-type: none"> Helps preserve plant species of concern and making a case for not listing them as threatened and endangered species (T&ES) Helps protect and preserve habitat and T&ES Helps protect ecological systems, such as the Central Shortgrass Prairie (CSP) ecoregion, in eastern Colorado Helps preserve large pieces of property with conservation value Conserves wildlife travel corridors Helps with water quality and quantity concerns Helps educate local governments about the need for ecosystem protection and management
Community relations and partnership benefits	<ul style="list-style-type: none"> Helps improve community relations Helped improve community visibility and collaboration within the Peak to Prairie Project Helped launch the CSP partnership Offers the potential to leverage military funds with state funds for acquiring conservation easements Helps foster more collaborative approaches to conservation in the region
Additional community benefits	<ul style="list-style-type: none"> Provides scenic open space Helps maintain quality of life and community sense of place Helped the Peaks to Prairie region do long range and more strategic planning Helps protect ranch land Helps increase local land values Landowner can keep land and get economic benefit from it beyond ranching

SOURCE: Lachman, Wong, and Resetar, 2007.

Often a partnership will have multiple benefits for the military installation. These categories are not mutually exclusive; there can be some overlap. For example, a partnership that provides extra capacity often improves installation operations or services. Therefore, there may be some minor redundancies in this discussion. However, to demonstrate the full range of benefits, it is important to include and explain the different categories.

Cost Savings, Earnings, and Cost Avoidance

Installation PuPs can provide installations with monetary value by reducing costs or earning the installation funds. *Cost savings* may occur from sharing fixed costs (such as sharing infrastructure and investment costs), sharing variable costs (such as operational expenses), economy-of-scale benefits, and efficiency gains (when the partner provides more-efficient services, so the installation spends less money to acquire the same services). Installation partnerships save money when the partner helps pay fixed costs for part or all of a joint service, facility, or infrastructure. An example of fixed-cost savings from shared infrastructure is the Little Rock AFB partnership with the City of Jacksonville, Arkansas, for building the Jacksonville–Little Rock AFB University Center. The City of Jacksonville provided \$5 million in construction funds for this education center that benefits military personnel, their families, and the community. An installation and a community partner can have economy-of-scale benefits by sharing the ongoing operational costs of providing a shared service or facility, such as sharing recreation or education services or shooting ranges. For example, consider Fort Benning's memorandum of agreement (MOA) with the Georgia Department of Human Resources and the Muscogee and Chattahoochee County Departments of Family and Children Services to coordinate on the reporting and investigation of allegations of child abuse and neglect and for the adoption of treatment alternatives. It provides the installation an estimated cost avoidance of \$300,000–400,000 a year because the post does not need as many social workers and other personnel (see Box 3.12). In some cases, the installation closes its facility and relies on the community facility and services, thus saving money by not having to invest in the installation facility and personnel, such as Fort Huachuca in Arizona closing its main library and partnering with the City of Sierra Vista to allow soldiers and their families to use the city library (see Box 3.11). In some unusual partnerships, the community pays for a new installation facility, such as the community funding \$500,000 for the construction of a recreational park for servicemen and their families at Maxwell AFB (see Box 3.9).

When a *partner provides a service to the installation more efficiently*, such as a maintenance or medical educational service, it saves an installation money. For instance, in the Eglin AFB/Florida state prison system partnership, the installation has more efficient grounds maintenance support that saves the base money. Efficiency benefits have also occurred in some energy Utility Energy Service Contract (UESC) partnerships, which also have helped installations save operations and maintenance (O&M) costs, for example:

Both Fort Knox and Fort Campbell used their UESC processes to ensure reliable operations and maintenance of their HVAC [heating, ventilation, and air conditioning] and other equipment, helping to save O&M costs over the long term. Because of Fort Knox's UESC hospital boiler-chiller replacement project, the hospital went from needing five full-time maintenance staff for the old boiler system, to paying \$85,000 per year for maintenance service of the new system.¹

Local governments and other public-sector partners can have some cost efficiencies over the private sector, in part because they have no profit requirements. As mentioned in previous chapters, the competitively awarded service contract provided by the Cities of Monterey and Seaside to the Presidio of Monterey in California saved the Army almost \$2.5 million during the first two years of operation because of the efficiency of the city services (see the appendix of

¹ Lachman, Hall, et al., 2011, pp. 39–40.

this report for more details on the savings). Similarly, the services contract and partnership at Naval Station Great Lakes in Illinois in partnership with Goodwill Industries has led to cost savings for the Naval Station (see Box 2.3).

Partnerships also help *installations avoid costs*, such as not having to invest in expensive infrastructure (such as a wastewater treatment facility) or providing extra capacity for a low-probability event, as is common with many installation mutual aid agreement (MAAs) for fire, emergency medical service (EMS), and other types of emergency situations. An example of the latter is the Army installation that relies on the local police helicopter to help with reports of criminal activity on the installation.

Many *partnerships that improve services provide some cost savings*, although often they are not quantified, may be small amounts, and may come from saving man hours. For example, in Camp Pendleton's partnership with the University of Washington Center for Conservation Biology, the base used dogs to locate endangered Pacific pocket mice. This saves the base money and time because the dogs covered the territory faster with less manpower than the traditional approach of using trapping for discovery (see Box 3.5).

Installation partnerships can also *help an installation earn money* when the installation rents or leases a facility or land to a partner. This is often an underutilized facility or piece of property that the installation does not need at the moment. However, the asset is a desirable facility or piece of property for the partner. For example, at Creech AFB in Nevada, the Town of Indian Springs rents the base church for community use. Many of these partnerships, especially Enhanced Use Leases (EULs), are facilitated by the use of in-kind payments or services. For example, Eglin AFB is leasing 17 acres of base property to a private firm through an EUL to build a hotel in exchange for \$25 million and 10 percent of gross sales being given to Eglin for installation projects. Similarly, Eglin AFB will also realize more than \$30 million in in-kind payment from the Mid-Bay Bridge Authority for the use of Eglin property for a new connector road. In-kind payments are being used for a range of base projects, including new runway lighting, runway striping and improvements, a fitness track, new fire suppression equipment, a fire station renovation, Okaloosa Darter habitat restoration, and installing solar thermal heating systems and energy conservation projects.²

Installations also sometimes *earn fees when community partners and members use installation's facilities and services*, such as community members paying to use the golf course or a government partner paying to use the vehicle wash facility to clean its large-scale vehicles. Often the installation has excess capacity, and the fees that pay for the service help pay for the facility. For example, in a partnership between Picatinny Arsenal and Rockaway Township, N.J., community members may use the Picatinny Arsenal aquatic park, which helps pay for this Morale, Welfare and Recreation (MWR) facility.³

Improved Military Mission

Installation partnerships can improve the military mission. For example, PuPs can *help testing and training operations*. We have already provided examples of PuPs that help improve the military mission and briefly refer to some of those examples here to illustrate how they specif-

² For more information see Gordy Fornell, Lt Gen, USAF (retired) "Military Community Partnership Initiative," Eglin Community Partnership Initiative, Florida Defense Support Task Force, June 27, 2013.

³ For more information, see Picatinny Arsenal, "Addendum Renewing the MOU Between Rockaway Township and Picatinny Arsenal on Community Partnership," June 29, 2010.

cially help the military mission. Communities help military missions by providing expertise, personnel, equipment, and facilities that help enhance the military missions, such as testing and training operations. In some cases, the *partner helps to build installation research and development (R&D), testing, or training facilities*. Massachusetts Institute of Technology (MIT) did this at Hanscom AFB by building an R&D building. General Motors did this at Yuma Desert Proving Ground in Arizona by constructing hot-weather vehicle testing facilities (see Box 3.15). The State of Connecticut Office of Military Affairs did this at Naval Submarine Base New London by helping to pay for a facility housing a new submarine bridge training simulation (discussed in depth later, see Box 5.1 in Chapter Five). The partnership at Hanscom AFB helps advance its R&D mission with new state-of-the-art research labs, while the partnership at Yuma helps in testing military vehicles and the Naval Submarine Base (NAVSUBASE) New London partnership helps in the training of seamen.

In some cases, the benefit to the mission is because the *partner provides personnel that help with the installation's mission*, such as postdoctoral students helping in medical research at Aberdeen Proving Ground in Maryland and industrial engineering students helping to improve the industrial processes at Ellsworth AFB in South Dakota.⁴

In other cases, the *installation's military personnel uses community facilities and infrastructure for training*, such as at one installation where the Army's helicopter pilots use three different community airports for helicopter training. Another, more common training benefit from the use of a community facility occurs when installation military personnel use a partner's shooting range for training. Similarly, specialized mission functions, such as military medical personnel, receive some mission-related training and experience in community facilities. For example, the Navy has a partnership with the Los Angeles County–University of Southern California Medical Center, where Navy medical personnel train and work in an inner-city civilian hospital trauma unit treating gunshot victims.

Lastly, installation partnerships may help the military testing and training missions by *helping to prevent encroachment from restricting installation activities*, as with Readiness and Environmental Protection Integration (REPI) partnerships.⁵ Such partnerships have a wide range of mission benefits at many different installations. We illustrate with an example from each of the four services and a joint base. At Vandenberg AFB in California, the REPI partnerships with the Land Conservancy of San Luis Obispo County and others have helped protect land within the base's airspace and missile launch safety areas, helping to improve operational safety and preventing costly workarounds that could have limited test and training activities.⁶ As shown in Table 5.1, Fort Carson's ACUB partnerships help protect the installation's training mission in a range of ways, including protecting the perimeter of the installation from ambient light, which helps with night training; minimizing the amount of impact to surrounding communities, thereby minimizing neighbor complaints about noise and smoke; and preventing high-density development in a 5-mile strip for 1.5 miles east of the installation. The Marine Corps Air-Ground Combat Center (MCAGCC) Twentynine Palms partnership with the Mojave Desert Land Trust has protected habitat for the threatened desert tortoise

⁴ For more information on this APG example, see the Medical and Health Issues section in Chapter Three. For the Ellsworth example, see the Other Military Missions section in Chapter Three.

⁵ For more information on REPI, see the discussion near the beginning of Chapter Four.

⁶ REPI, "U.S. Air Force: Vandenberg AFB: California," fact sheet, undated-d.

and other species, which helps prevent the creation of “off-limit” areas on base; helps preserve live-fire, maneuver, and helicopter training; and reduces having to implement less-realistic workarounds that would have reduced training effectiveness.⁷ At Naval Air Station (NAS) Whiting Field in Florida, the base’s REPI projects have helped its air training mission in a variety of ways, including preventing incompatible development, residential development in the Air Installation Compatible Use Zone (AICUZ) (which enhances mission safety), helping minimize radio interference and light interference, helping preserve operational flexibility, and facilitating joint training space (see Box 4.2).⁸ Lastly, at Joint Base San Antonio in Texas, a REPI partnership with the City of San Antonio has helped preserve regional habitat for the golden-cheeked warbler, which helps protect Camp Bullis’s medic field training, live-fire, artillery, and ground-vehicle maneuver training; it also helps mitigate noise complaints and improves operational safety.⁹

Improved Installation Operations, Facilities, Infrastructure, Workforce, and Services

PuPs help improve the effectiveness of installation operations, facilities, infrastructure, workforce, and services. For instance, a benefit of some maintenance partnerships is that *systems break down less often*. Energy and water infrastructure partnerships help increase the reliability of energy and water systems because of the improvements to the infrastructure. Some energy partnerships have also improved building performance and comfort for occupants, such as UESC partnerships at Fort Knox.

From its UESC projects, Fort Knox increased comfort and reduced mold problems in its buildings, resulting in quality of life benefits. There were fewer complaints and problems regarding heating and cooling, and improved service, especially because of the significant investments in [ground source heat pumps] (GSHPs), EMCS, and O&M.¹⁰

Installation partnerships that involved *shared installation facilities and infrastructure* obviously help to improve such military assets. For instance, Minnesota Army National Guard (MNARNG) partnerships with local communities to build and share joint multipurpose centers called Training And Community Centers (TACCs) have improved those facilities (see Box 4.6). Larger partnerships can provide a range of facility and infrastructure benefits, such as an EUL deal between Hill AFB and Sunset Ridge Development Partners in Utah to build Falcon Hill National Aerospace Research Park, a mixed-use commercial development on about 550 acres of U.S. Air Force (USAF) land on the west side of the base.¹¹ Hill AFB gains millions of dollars in replacement office space, new gates, and other facilities improvements because of the replacement of deficient base office space with new buildings by utilizing in-kind payment consideration. Also, the State of Utah is a partner and has provided two grants to support some infrastructure construction—road improvements and gate relocations. This partnership

⁷ REPI, “U.S. Marine Corps: MCAGCC Twentynine Palms: California,” fact sheet, undated-g.

⁸ For more examples of mission benefits from NAS Whiting Field’s REPI partnerships, see Lachman, Wong, and Resetar, 2007, page 197.

⁹ REPI, “U.S. Air Force—U.S. Army: Joint Base San Antonio: Texas,” fact sheet, undated-c.

¹⁰ “Having good service support from its utility and its contractors was key to this success.” Lachman, Hall, et al., 2011, p. 39.

¹¹ For more information about EULs, see the discussion in Chapter Four.

also enhances USAF program integrity by consolidating the workforce, improving morale and accessibility, and providing better work facilities.¹²

Installation operations and services, such as recreation services and emergency response operations, benefit from installation partnerships. Partnerships with maintenance help for ball fields often improve appearance and conditions because they are mowed and cared for more frequently than had been done by the installation because of budget constraints, such as Naval Support Activity Annapolis having ball field maintenance help from the City of Annapolis Recreation and Parks Department in Maryland. Emergency response services are improved from fire and EMS MAA partnerships because of joint training and sharing of resources and facilities. For example, Midwest City, Del City, and Tinker AFB have an expanded partnership for joint training and the sharing of operational information for their respective fire departments; thereby learning the equipment, standards, and territory of the others while developing working relationships that may be required in an emergency. By collaborating, each of these departments in effect is expanding its own capability without an increase in expenditures. “There are 84 [Midwest City] firefighters, 24 Del City firefighters and 96 Tinker AFB firefighters but the whole of this operation will be greater than the sum of the parts.”¹³

Another important effectiveness benefit that installations experience from partnerships is *workforce improvements*, such as improved education and training of installation staff. The Hill AFB and Tinker AFB partnerships just discussed provided examples of such workforce benefits. Another key workforce benefit is that partnerships can free up some installation manager and staff time, especially when partners are managing and operating installation infrastructure or services or providing such items. For example, in the MNARNG TACC partnerships, the community often manages the operation of the TACCs, so “the Guard is free to focus on the mission.”¹⁴ This workforce benefit was also experienced in the Presidio of Monterey partnership:

The Monterey Model reduces many of the concerns of managing infrastructure and the workforce needed to maintain it for the garrison commanders involved. This approach allows garrison officials to focus their time and resources on better serving their customers, the student population and permanent party personnel who provide training.¹⁵

From installation PuPs, *installations’ services have effectiveness benefits*, such as for social, library, and health care services. We illustrate with three examples introduced in Chapter Three. Fort Benning’s partnership with the Georgia Department of Human Resources and the Muscogee and Chattahoochee County Departments of Family and Children Services regarding incidents that involve the potential abuse and neglect of children of military families helps improve the family support services that this post provides (see Box 3.12). Similarly, because of its partnerships with local colleges for library student interns, Hill AFB’s library has an expanded summer reading program, an improved preschool literacy program, and addi-

¹² It also has mission benefits because it helps maintain mission effectiveness and facilitates mission growth for the installation by providing the ability to add office and specialty workspace. See Hill AFB, “Frequently Asked Questions, Falcon Hill Enhanced Use Lease, Hill AFB UT,” undated.

¹³ Joel Dean, “MWC, Del City and Tinker Firefighters Ride-Out Agreement,” *EastWord News*, July 3, 2014.

¹⁴ Army National Guard, 2009b.

¹⁵ Fred Meurer et al., “Installations-Community Partnerships: A New Paradigm for Collaborating in the 21st Century,” *Journal of Defense Communities*, Vol. 1, 2012, p. 7.

tional adult computer assistance (see Box 3.10). Lastly, NAS Patuxent River's partnership with Walden Sierra to provide mental health counseling services to base personnel helps enhance medical services at this Maryland base.

Installation data infrastructure can also be enhanced by partnerships, such as in Fort Bliss's cultural resources data-sharing partnership with the State of New Mexico (see Box 4.5).

Another benefit to installation operations and services is that partnerships can *help installations better manage risk*. For instance, consider the Presidio of Monterey and City of Monterey partnership, which "helps all government decision makers involved manage political risk by providing a structure and framework that is dependable and predictable, and an interdependence that forces practical considerations to transcend political ones."¹⁶ Similarly, in the Nellis AFB EUL with the City of North Las Vegas, where the city built a fitness center and reclaimed water and water supply infrastructure on base, this project helped "the Air Force manage the risks of relying on congressional appropriations for military construction funds."¹⁷

Improved Strategic Regional Collaboration

Installation partnerships have also helped *improve strategic regional collaboration* in such areas as ecosystem management, transportation, emergency response, security, watershed management, and community growth and development. Often, such partnerships focus on regional cooperation, coordination, management, and planning. For example, the Peak to Prairie Project and the Central Shortgrass Prairie (CSP) ecoregion partnerships (see Box 3.16) and the Gulf Coastal Plain Ecosystem Partnership (GCPEP) (see Box 2.1) help the partners to coordinate and work together to *restore and enhance regional ecosystems*, benefiting the military installations and the communities. Such partnerships also focus on *regional planning related to community growth, development, and transportation issues*. In Maryland, for instance, Marine Corps Base (MCB) Quantico's partnership with three counties and three regional commissions on coordinated, long-range regional planning helps with regional growth, transportation, and encroachment concerns. Similarly, NAS Whiting Field's collaboration with Santa Rosa County in Joint Land Use Study and REPI activities improves strategic collaboration between the county and base over long range land-use planning. Such partnerships have also *helped on regional operational and implementation issues, especially in areas such as emergency response and security*. An example related to regional emergency medical response is the Bethesda Hospitals' Emergency Preparedness Partnership with the National Naval Medical Center, the Suburban Hospital Healthcare System, and the National Institutes of Health Clinical Center (see Box 3.1).

These partnerships do not just focus on strategic planning, management, and response. They also focus on *shared regional infrastructure and facilities*, as in the Fort Drum Military-Civilian Regional Healthcare partnership, where the regional health care system has been enhanced both for military personnel and their families and for the community (see Box 3.13). Such a strategic regional collaboration provides investments in improving the quality and expanding the capacity and capabilities of the regional health care system. Similarly, Educational Partnership Agreement (EPAs),¹⁸ such as the one in which Edwards AFB and Antelope

¹⁶ Meurer et al., 2012, p. 8.

¹⁷ Meurer et al., 2012, p. 8.

¹⁸ For more information about EPAs, see the discussion near the beginning of Chapter Three.

Valley College in California share facilities, personnel, and infrastructure (see Box 4.1), provide strategic regional benefits for enhancing and expanding science, technology, engineering and mathematics (STEM) education and workforce capabilities with a region.

Access to Additional Capacity in Resources, Skills, Expertise, Facilities, and Infrastructure

One of the most important benefits of PuPs is that they *give installations access to additional capacity* in a range of different areas. First, partners *provide installations with extra resources, including financial, human capital, and natural resources*. Financial resources often come in the form of capital, so installations can make investments in building new or renovating existing facilities and infrastructure. A common example here are UESC and Energy Savings Performance Contract (ESPC) partnerships, where millions of dollars are provided from non-military sources to install water and energy efficiency investments at installations, such as the Navy ESPC partnership project at Virginia's Naval Air Station Oceana Dam Neck Annex to install energy and water conservation measures. Another example is when partners help provide capital to build large-scale renewable energy projects, such as the large-scale solar array at Fort Carson in Colorado (see Box 2.2). In these examples, the installation pays for the capital investment gradually over time, and saves by not having to have the capital up front. In other cases, the installation benefits from shared capital investments in joint buildings and other facilities, where the partners provide financial resources that the military does not have to pay back. Such shared facilities can be on or off the installation. For example, MIT paid for a shared R&D facility on Hanscom AFB,¹⁹ while the City of Omaha helps fund a fire and police training center that the Nebraska National Guard also uses.

Installation partnerships also *help the installation access resources that it could not access on its own, such as community financial donations*. For example, the Camp Pendleton Armed Services YMCA, a civilian nongovernmental organization (NGO) located on Camp Pendleton, partners with the California installation to provide a range of support services to military personnel and their families, and can take donations from the community to help provide additional free services (see Box 3.14).

Human resources include the *partners providing extra manpower, technical skills, and expertise*. Namely, such partnerships help improve access to important human resources. We illustrate with one example each for an Air Force, Army, and Navy installation. Avon Park Air Force Range in Florida has a partnership with the U.S. Fish and Wildlife Service (USFWS) for this agency to provide conservation law enforcement on the USAF range. USFWS personnel provide enforcement for the Endangered Species Act and other issues, including problems with trespassers, wildlife poachers, and endangered species violators. Fort Jackson in South Carolina has a partnership with Midlands Technical College, in which the college provides instructors to teach ESL to military personnel and their families. NAS Whiting Field's buffering program has benefited from GIS and other technical assistance from Santa Rosa County personnel.

Improved access to natural resources has primarily focused on using another organization's land, though some are for water. Installations benefit from partnerships to *use other federal and state lands for testing and training operations*, such as the USAF using withdrawn Bureau of Land Management (BLM) and USFWS lands for the Nevada Test and Training Range. A

¹⁹ We should note in this Hanscom AFB example that the installation does pay some rent for the facility since it did not share in any of the construction costs. However, the installation does not have to pay for the full capital investment for the R&D facility like it does with UESC deals.

water example is the partnership at Fort Meade in Maryland, where Howard County is providing reclaimed water for cooling needs at the National Security Agency's new 600,000-square-foot computer center (see Box 3.3). There are also some limited examples related to energy, such as waste-to-energy partnerships where the installation is using community trash as a resource. For instance, Marine Corps Air Station (MCAS) Miramar has a partnership with the City of San Diego for methane-to-power conversion from a city landfill, which provides energy to the installation.²⁰

Second, installations benefit from the *additional capacity provided by partner equipment, facilities, and infrastructure*. For example, in its EPA partnership with Antelope Valley College, Edwards AFB uses the college's research facilities, including computing systems and libraries. Benefits from using extra equipment from a partner often occur in areas where extra capacity is needed because of a rare event, such as for large-scale emergency response incidents when specialized vehicles (fire trucks, ambulances, helicopters, etc.) are needed at an incident. Naval Support Activity Bethesda in Maryland relies on Montgomery County Fire Rescue Service for a ladder truck when needed.²¹ Installations benefit from using a range of partner facilities and infrastructure, including runways, R&D facilities, hospitals, churches, emergency shelters, shooting ranges, and waste processing and recreation facilities. We illustrate with one example each from the Air Force, Army, and Navy. Ellsworth AFB medical personnel use community hospitals for training. Carlisle Barracks in Pennsylvania uses the Borough of Carlisle's composting facility. Because of partnering with local public community pools, some Navy seamen and their families have used community swimming pools in Southern California when installation pools were closed.

Improved Government and Community Relations

PuPs also can improve an installation's partnerships and relations with other federal, state, and local governments, the private sector, universities, nonprofit organizations and individuals.²² Installation partnerships help improve relations through a range of activities. First, there are *improved relations from sharing a facility*, primarily a result of community and military personnel interacting more frequently. For instance, consider the Minnesota Army National Guard (MNARNG) partnership with state and local governments that combine their Readiness Centers with local community centers to create joint multipurpose TACCs. Such facilities have helped the MNARG's image with diverse community members and with recruiting:

Local residents' appreciation for the TACCs and their contact with citizen-soldiers increases their positive regard for the Guard. "We have day-to-day contact with the Guard; it's helped the community embrace the soldiers and support them as people and support this building," says Maureen Asleson, rental coordinator for the Rosemount TACC.... This contact

²⁰ Actually, the Navy leases the landfill property to the city, about 476 acres on the south end of MCAS Miramar. This partnership supplies up to half the base's energy by recovering methane gas from the landfill and converting it to electrical energy. (San Diego County, "Success in the Enterprise Operation of the Miramar Landfill," San Diego County Grand Jury 2012–2013, May 6, 2013)

²¹ For more details on this partnership, see Maryland Department of Business and Economic Development, 2014, p. 58.

²² These benefits were expressed by military and community partnership representatives during our interviews, as well as by participants at Association of Defense Communities conferences.

with ARNG soldiers also educates young people about the Guard.... The community's positive attitude toward the Guard explains the MNARNG's off-the-charts recruiting record.²³

Second, *letting a community use an installation facility improves the installation's image as being a partner in the community*. Allowing community partners to use certain facilities, such as shooting ranges or recreation facilities, helps improve military relations with those facility users and often the broader community. For instance, people who hike, camp, or hunt at Avon Park Air Force Range are likely to feel more positively about this installation because of this opportunity. A partner using installation land for key infrastructure, such as with the Nellis AFB and the City of North Las Vegas EUL deal, also can result in "closer bonds between the base and surrounding community."²⁴ Sometimes, the access provides *public relations benefits with a particular stakeholder group*, such as with NAS China Lake's partnership that allows access to Native American sites by the Owens Valley Paiute–Shoshone Band of Native Americans in California. Many times, the public relations benefits are with specialized stakeholders and the broader community. For instance, allowing citizen scientists from the Red Rock Audubon Society to monitor and survey for burrowing owls on Nellis AFB improves relationships with environmental groups, the USFWS, and the broader community. Improved relations may benefit the installation longer term in myriad ways, from facilitating mutual problem-solving (required in successful partnerships) to enhancing operations, as well as improving the well-being of servicemen, servicewomen, and families, resulting from the greater mutual understanding.

Third, installation and community partners working together on a joint project or broader good—such as environmental, safety, emergency response, and regional health care issues—*helps the installation's image and reputation* in that area and beyond. Joint events like energy awareness, Earth Day, recycling, and public safety fairs help improve the military installation's reputation in such areas. For example, Fort Wainwright hosted an Earth Day sustainability event with local community leaders in collaboration with Eielson AFB, Fairbanks North Star Borough, City of Fairbanks, and City of North Pole, which helped improve both Wainwright's and Eielson's environmental images with the local communities. Sometimes, the events are to help educate the community directly about military activities, as in the State of Connecticut Office of Military Affairs (OMA), Eastern Connecticut Chamber of Commerce, the Navy, Naval Submarine Base New London, the United States Coast Guard, and the National Guard partnership to create a Military Orientation Day that educated the community about the regional military activities and benefits they supply to the community.

Installations' partnership activities in ecosystem management, regional planning, and other activities to help prevent incompatible development have *strengthened installations' partnerships in other areas, improved their environmental image, and created other public relations benefits with a range of stakeholders*. For example, NAS Fallon's REPI partnerships in Nevada have improved the installation's communications process and relations with the public and community, which includes farmers, other landowners, Churchill County personnel, Churchill County Commissioners, the Lahontan Valley Environmental Alliance, U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS), BLM, water conserva-

²³ Army National Guard, 2009b.

²⁴ Meurer et al., 2012, p. 7.

tion districts, and county economic development personnel. Often, the public relations benefits are for both the installation and its Service, such as at Fort Stewart in Georgia, where ACUB activities improved installation relations with private landowners, USFWS, natural resource management offices of the state and local governments, environmental groups, and community leaders. In addition:

The program has enabled Fort Stewart to know other entities and build constructive relationships with them, improving trust and expanding their understanding of the Army, what it does, and why it does it. The Fort Stewart buffering program has helped outsiders, such as local landowners and environmental and conservation NGOs, view the military in a more positive way. For the Army, it has also helped improve public relations with surrounding communities. All the counties now know about ACUB and Fort Stewart's encroachment needs and concerns.²⁵

This image often includes viewing both the installation and Service as helping with environmental conservation—as at NAS Whiting Field, where REPI activities promote “the image of the Navy as a committed partner in conservation.”²⁶ Such partnerships to address incompatible land uses have also helped improve relations with realtors associations, as at MCAS Beaufort in South Carolina. Such REPI partnerships have also provided facilitator and political help with state and local governments to gain their support and funding help in conservation buffering near the installation, as at NAS Whiting Field.

Lastly, military personnel helping in the community *improves the reputation of the military installation*. The installation and the military are viewed as part of the community. For instance, soldiers from Fort Wainwright volunteering in North Star Borough School District schools helps the community view military personnel as being caring and supportive of local schools, as do Naval Support Facility Carderock personnel providing STEM teacher training and mentors for Montgomery County Public Schools in Maryland.

Enhanced Outreach to Military and Their Families and Installation Personnel

PuPs can also *increase an installation's outreach to military personnel and their families and help change personal attitudes of installation employees*. This type of outreach benefit is especially important to partnerships in the social services area, where installation staff are trying to help improve individual behavior and family relationships to prevent illegal or risky behaviors, such as reckless driving, domestic violence, child abuse, drug and alcohol abuse, sexual assaults, theft, and other activities that are against the law. Since so many military personnel and their families live off the installation, a critical element in providing effective social services is to get information to those in need, in addition to providing a seamless array of services. Thus, through partnerships with community-based social services, *installations can enhance their ability to reach those in need and to coordinate the services with locally available resources*. For instance, Fort Benning's partnership with the Columbus Alliance for Battered Women, Inc., and the Crisis Center of Russell County to provide emergency housing for military spouses, their children, and female soldiers who are victims of abuse/sexual assault, includes community education and outreach help in such areas (see Box 3.12).

²⁵ Lachman, Wong, and Resetar, 2007, p. 155.

²⁶ Lachman, Wong, and Resetar, 2007, p. 198.

In some cases, the partnership involves the partner having a direct role in *helping the installation with outreach to the installation community*. For example, Fort Bliss and the City of El Paso had a partnership to exchange public works services; as part of that, the city provides outreach information to installation personnel, soldiers, and their families about key city activities, such as the Christmas Tree Recycling Program, the Household Hazardous Waste Collection Day, and the Texas Recycles Day (discussed in Chapter Six, Box 6.1). Partners also help *provide outreach both to the installation and the broader community*. For instance, in a Tinker AFB partnership with Del City, Oklahoma, to address the nuisance resident geese at Eagle Lake in Del City, the city dealt with the public and managed access during the special hunt for the nuisance geese.²⁷

Some partnerships in energy, solid waste, water, and other environmental areas *help educate military personnel and their families about recycling and energy and water conservation practices, along with other activities that help the environment*. For example, Fort Carson has partnered with local communities as part of their sustainability program and has held sustainability fairs and meetings with local governments and industry partners that have helped educate military personnel and their families, as well as installation staff, about green energy, saving water, recycling, habitat conservation, and other environmental activities. Partnerships for special outreach and education events and joint activities, such as Earth Day and energy awareness events, are designed to help educate installation and military personnel and their families. For example, Columbus AFB's partners, Mississippi Soil and Water Conservation Commission and the Lowndes County Soil and Water Conservation District, have helped educate military and civilian children about nonpoint source water pollution at Columbus Air Force Base's Earth Day celebration for school kids.

Some partnerships have helped *improve internal installation working relationships, knowledge, and views of installation military and civilian personnel*. Often, successful partnerships can help improve attitudes among installation management and staff about collaborating with communities and other nonmilitary organizations, such as with NAS Fallon and MCAS Beaufort's REPI partnership activities to address encroachment concerns. At MCAS Beaufort,

The program has also helped improve installation management attitudes about collaboration with non-military organizations in installation management. The installation management is much more open to collaborating with local governments and NGOs in areas where there are mutual interests.²⁸

Installation PuPs have also helped *improve working relationships between installation personnel*. For instance, Fort Stewart's ACUB partnerships have helped improve collaboration between installation training range and environmental staff by helping to improve communications.

Energy and Environmental Benefits

Some installation partnerships also *help save energy and improve environmental conditions, including air quality, water quality, wetlands, species, habitat, and ecosystem benefits*. These can

²⁷ Tinker AFB, 2013b. We should note that Tinker AFB helps the city by sharing wildlife survey data and in helping to hunt and capture the nuisance geese. This partnership helps reduce the hazard of birds striking aircraft.

²⁸ Lachman, Wong, and Resetar, 2007, p. 172.

range from installation-specific benefits, such as *decreasing environmental liabilities* or enhancing installation energy or water security, to broader community benefits, such as enhancing wetlands, water quality, and ecosystems. For instance, one of the USAF-specific benefits of Eglin AFB's partnership with Okaloosa County for the construction of the Arbennie Pritchett Water Reclamation Facility on the base and its treatment of installation wastewater is that the base no longer has the environmental liability associated with running the facility. Installations have also *enhanced energy or water security through installation partnerships*, such as Tinker AFB's partnership with Oklahoma Gas and Electric (OG&E) for the utility to install on-site power generation at the base, which helps with base energy security (see Box 3.4).

Another type of energy and environmental benefit from partnerships is *reducing the consumption of energy and water and helping installations meet their energy and environmental goals*, such as helping to increase investments in renewable energy. For example, the Fort Carson large-scale solar array partnership helps this post in striving to achieve its renewable energy goals (see Box 2.2).

Obviously, when successful, partnerships for energy efficiency and water conservation help the environment by *helping to reduce use of these resources*, such as the Fort Knox UESC partnerships (see Box 4.3). But so can other partnerships that are not directly focused on an energy or environmental issue. O&M partnerships also often help the environment because equipment, such as HVAC systems, that is better maintained uses less energy. Transportation partnerships can also help save energy use and have air and water quality benefits. For instance, Mississippi's Keesler AFB's partnership with vRide and the Coast Transit Authority's "Coast Commuter" program to provide commuting vanpools for base employees to share has reduced the number of cars on the road, which has reduced energy use, air pollution, and water pollution (see Box 3.6).

As discussed in Chapter Three, environmental partnerships to *help species and habitats, and for ecosystem and watershed management, generate environmental benefits*, such as Camp Pendleton's partnerships to help save the endangered Pacific pocket mouse (see Box 3.5), and the GCPEP (see Box 2.1). Often the REPI partnerships to address encroachment have many different environmental benefits. For instance, Fort Carson's ACUB partnerships have helped conserve wildlife corridors, protect habitat and T&ES, address water quality and water quantity concerns, and preserve ecological systems (see Table 5.1). Even REPI partnerships that are not focused on environmental issues have had environmental benefits, as at MCAS Beaufort: Primarily focused on preventing incompatible development by protecting open spaces, MCAS buffering projects have also helped local water quality, the local aquifer, and to preserve habitat. They have protected wetlands and tidal marshes and preserved wildlife corridors from uplands to marshes for animals such as otters and minks.

Benefits to Partners from Installation PuPs

Community and other partners involved in installation PuPs also experience a range of benefits from the PuPs. Many of these benefits are very similar to installation benefits. Sometimes they are even identical, while other times there are some clear differences, as we will explain. We have grouped these benefits into eight categories:

1. economic benefits and cost savings

2. improved community operations, facilities, infrastructure, workforce, and services
3. improved strategic regional collaboration
4. access to additional capacity in resources, skills, expertise, facilities and infrastructure
5. facilitator and political help with federal, state, and local governments and other organizations
6. enhanced outreach to communities
7. energy and environmental benefits
8. help in maintaining community character and way of life.

Before we discuss each category, we should note that, just as with installations, a partnership can have multiple benefits for the community and other partners and that these categories are not mutually exclusive; there can be some overlap. For example, a partnership that provides extra capacity often improves community operations or services. Thus, there may be some minor redundancies in this discussion. However, to demonstrate the full range of benefits, it was important to include the different categories. There are also some redundancies with the installation benefits. To address this, we emphasize the differences and discuss some similar benefits, but do not repeat the benefits discussion where they are exactly the same. In some cases, we discuss the same partnership examples to illustrate how the partner benefits compare with the installation benefits, which may be the same or different.

Economic Benefits and Cost Savings

Installation partnerships provide communities and other partners with a range of economic benefits and cost savings. First, in those installation partnerships where the installation pays a fee for a service, the *partner gains income* for the service provided. For example, the service contract between the Cities of Monterey and Seaside and the Presidio of Monterey provides the cities with income (see the appendix of this report for more details). Similarly, the services contract at Naval Station Great Lakes in partnership with Goodwill Industries provides the partner with funding so they can hire nearly 1,400 people with disabilities and mental illnesses to provide the base services (see Box 2.3). Payments are also collected by partners in water and energy UESCs, ESPCs, and utility privatization deals that function like partnerships. Often the fees collected by the community partners help the partners pay for existing capacity or invest in additional capacity. For instance, Midwest City is able to collect some extra revenue from Tinker AFB that helps pay for expanded and renovated jail facilities in its partnership with the base to provide jail service for short-term housing of military detainees and inmates (see Box 3.2). Similarly, in the Presidio of Monterey partnership with the City of Monterey, the city “receives funding that allows it to supplement other revenue streams, and has staff skills and resources that would otherwise not be available, while continuing to provide quality public facilities and services to its residents.”²⁹

Second, just like with installations, *community partners may also realize cost savings from shared services, infrastructure, and investment costs*, such as saving in constructing new buildings. Shared services from recreation to educational to medical helps save a partner money. An example of partner savings from shared infrastructure occurs in the aforementioned Little Rock AFB partnership with the City of Jacksonville for building the Jacksonville–Little Rock AFB University Center. In the construction of this joint educational facility, the community

²⁹ Meurer et al., 2012, p. 7.

saved money (just like the installation has), because the Air Force provided \$10 million to help build it. Similarly, partnerships where communities and installations share energy and water infrastructure help save the communities money. The community partner can have economy-of-scale benefits from investing with the installation. REPI partnerships often leverage military and community funds to invest in land conservation—as at MCAS Beaufort, where Churchill County saved money in land preservation investments. Such financial benefits may also occur because of the installation helping to bring other funding partners to the table for shared services. For example, the Fort Drum Military-Civilian Regional Healthcare Partnership helped acquire funds for New York State and other organizations to invest in regional health care, which saved the local communities money.

Third, *partners save money from installation PuPs when the installation provides equipment, facilities, land, or a more efficient service*. For example, the airfield at Sheppard AFB in Texas also is the Wichita Falls Municipal Airport (because it is a joint civilian/military [joint-use] airport), and it saves the City of Wichita Falls money by allowing the community to use the base's airfield. Similarly, community clubs and swim leagues using Naval Support Activity Annapolis swim facilities saves these organizations money. Such savings also occur when the installation donates the service, equipment, facility, or land space to the community. For instance, Antelope Valley College receives some free surplus laboratory equipment from Edwards AFB in their EPA (see Box 4.1). Also, some partners save costs by using free office space on an installation instead of having to lease office space, such as Fort Bliss having different partnerships that provide free office space to the nonprofit Upper Rio Grande Workforce Development Board, the Small Business Administration, and the El Paso County Tax Office (each of which provides free services to the installation).

Just like with installations, installation PuPs also *help communities avoid costs*, such as not having to invest in extra capacity for a low-probability event, as is common with many communities' MAAs for fire, EMS, and other types of emergency situations. In some cases, the community avoids investing in expensive infrastructure, like a wastewater treatment facility. For example, MCB Quantico supplies water and wastewater to the Town of Quantico, and the town avoids having to invest in such infrastructure.

Lastly, installation PuPs also can *help the local and regional economy*. The economy may benefit from installation PuPs by helping to provide jobs and increase the state and local tax base.³⁰ For example, the partnership to develop the Falcon Hill National Aerospace Research Park on 550 acres of Hill AFB will provide thousands of new jobs, including construction employment and long-term aerospace-related jobs. This EUL deal also expands the tax base from property taxes on the commercial buildings to be constructed and the sales taxes on retail sales in the commercial parts of the development. Similarly, the Fort Drum Military-Civilian Regional Healthcare Partnership has contributed more than 4,000 jobs in the region and has had an estimated \$373 million annual impact within the local economy.³¹

Communities see that the *local economy benefits when installation partnerships help to keep traditional jobs in the region*, such as agriculture and ranching, that might disappear from pres-

³⁰ It is important to note that benefits to the local economy occur only if the economic development would not have occurred absent the partnership.

³¹ Fort Drum Regional Health Planning Organization, 2012.

sures such as growth and development.³² For instance, Fort Bragg's ACUB partnerships have preserved "working lands for forestry, benefiting the local economy,"³³ and "the Avon Park AFR [Air Force Range] REPI project benefits stakeholders and industries important to the Florida economy, such as agriculture, recreation, and ecotourism."³⁴ REPI partnerships can *help keep an installation as a stable economic foundation in a community*, such as at NAS Whiting Field. Installation partnerships have also helped to *increase local land values*, as with Fort Carson ACUB activities (see Table 5.1), which the community views as helping the local economy.

Improved Community Operations, Facilities, Infrastructure, Workforce, and Services

Just like installations, community partners experience effectiveness benefits from PuPs. Installation partnerships that involve *shared construction, maintenance, and/or operation of community facilities and infrastructure help to improve such community assets*, such as the City of Omaha sharing the construction costs of the Omaha Police and Fire Training Center with the Nebraska Army National Guard. Regional water services are enhanced in the El Paso region because of the partnership that built an El Paso Water Utilities desalination plant on Fort Bliss.

By partnering with installations, communities have improved their operations and the services that they provide to the public. Such *effectiveness benefits have occurred in areas such as recreation, social services, health care and emergency response operations*. For example, the community having access to a new trail at NAS Whiting Field improves the recreation services available to the public. The Fort Drum Military-Civilian Regional Healthcare Partnership helped improve regional health care in this rural region to a level that likely would not have occurred without the partnership. As a state senator stated:

Meeting the needs of 18,000 soldiers and their family members has required significant investment in world-class facilities, equipment, doctors, nurses and health care professionals, whose caring and expertise benefit the entire region. Regional and community hospitals in Watertown, Carthage, Alexandria Bay, Lowville, Gouverneur and Ogdensburg are working on increasing collaboration to ensure efficient delivery of quality health services to the entire community, including Fort Drum soldiers on- and off-post, fast becoming models for rural health care in all parts of the state and nation.³⁵

Similarly, the Midwest City, Del City, and Tinker AFB fire department partnership for joint training provides the same operational benefits to the cities as it does to the base. This example illustrates how, just as installations do, communities experience workforce improvements, such as improved education and training of installation staff, from installation partnerships.

Effectiveness benefits for the community can also accrue from installation partnerships focused on educational services. Installation PuPs *help improve the access to and quality of education in schools and colleges and universities*. First, such partnerships help by military personnel providing educational, training, and mentoring services to community schools and colleges,

³² We should note that growth and development would also bring jobs to a region, but some communities value maintaining the traditional jobs and view that as being an important economic element of their community.

³³ REPI, "U.S. Army: Fort Bragg: North Carolina," fact sheet, undated-e.

³⁴ REPI, "U.S. Air Force: Avon Park AFR: Florida," fact sheet, undated-b.

³⁵ Ritchie, 2014.

often through EPAs. For example, Naval Support Facility Carderock personnel helped provide STEM teacher training for elementary, middle, and high school teachers in Montgomery County Public Schools, which helps enhance those school services. Second, installation PuPs may also provide facilities that improve the educational experience for community students. For instance, in a partnership among Vandenberg AFB, the USFWS, and the Channel Islands National Marine Sanctuary, the installation serves as an outdoor environmental classroom for local high school students studying marine biology along Vandenberg's coastline. Similarly, installation partnerships that involve college interns working in installation facilities have helped provide real-world educational experience for college students, such as students working at the installation library, in industrial processes, and at R&D facilities at Hill AFB, Ellsworth AFB, and Aberdeen Proving Ground, respectively.

Like installations, *partner operations may also benefit from better management of risks*. For example, the Nellis AFB EUL partnership with the City of North Las Vegas helped “the city of North Las Vegas manage water treatment costs and the risk that limited water resources presents to economic growth.”³⁶

Improved Strategic Regional Collaboration

Installation partnerships have also *helped improve strategic regional collaboration* that is also a benefit for community partners. Since benefits are the same for the community as for installations, we do not repeat the information.

Access to Additional Capacity in Resources, Skills, Expertise, Facilities, and Infrastructure

Just like installations, one of the most important aspects of installation PuPs for community partners is that they benefit from installations providing extra resources, facilities, and infrastructure to communities and other partners. First, *installations provide community partners with extra resources, including financial and human capital, as well as natural resources*. Financial resources often come in the form of *sharing facilities both on and off the installation and joint investments in building them*. One example is the MNARNG partnerships with local communities to build and share joint TACCs (see Box 4.6); another is the aforementioned joint Little Rock AFB University Center. Joint financial resources also are key for acquiring conservation easements and property for community conservation purposes and for installation buffering. In fact, the pooling of community, installation, and DoD funds for community land purchases have been key to many of the REPI partnerships to address encroachment concerns. For instance, with MCAS Beaufort’s partnerships with the Trust for Public Land and Beaufort County to acquire buffering properties for the Beaufort County Open Space preserve system, a

county and community benefit is leveraging resources by stretching the land preservation dollars of the county. As one local government official stated, it is a “win-win” because the local government doubles its money and so does the military in joint projects.³⁷

Through the REPI partnerships, some military funds also have been used to *help with environmental research and management activities on partners lands*, such as ACUB funding at

³⁶ Meurer et al., 2012, p. 8.

³⁷ Lachman, Wong, and Resetar, 2007, p. 172.

Joint Base Lewis-McChord for research and prescribed burns to help restore prairie habitat on Washington Department of Natural Resources land.

Improved access to human resources due to PuPs include the *installation providing extra manpower and technical skills and expertise to help the community*. For instance, NAS Fallon provides trained personnel and military working dogs to assist Churchill County and other local agencies in law enforcement, physical security, and antiterrorism operations.³⁸ Manpower benefits also involve military personnel and their families volunteering in the community. For example, at Aberdeen Proving Ground, single soldiers volunteer in community service projects, including visiting veterans in hospitals, playing baseball with children of the League of Dreams, and building homes with Habitat for Humanity.³⁹ Extra manpower with technical skills and experience has been especially valuable for STEM and other community educational activities. For example, personnel from the Naval Undersea Warfare Center, Puget Sound Naval Shipyard, and commands within the Navy Region Northwest in Washington helped in an underwater remotely operated vehicle competition at a local high school in Kitsap County (see Box 3.8).

Natural resources benefits occur when *communities are able to benefit from installation environmental, cultural, and land resources*. We illustrate with a few different installation examples. Installation natural habitat has been a key asset for *partners' environmental science research*. For instance, scientists from the State University of New York, College of Environmental Science and Forestry take advantage of the forest conditions at Fort Drum to study the survival rate of ruffed grouse during the hunting season. Partners also use an installation's natural habitat to *provide hunting, hiking, camping, and natural watching opportunities to the public*, as at Avon Park Air Force Range. *Access to installation cultural resources*—including historical buildings, cemeteries, and Native American sites—are also key assets that community partners experience on installations. For instance, at China Lake, Native American and public groups benefit from visiting the Coso Hot Springs and Prayer Site areas and the Little Petroglyph Canyon. Lastly, community partners use installation land for community trails, roads, and building specialized facilities. Some partners have built power plants on an installation because it can be cheaper and easier—given community “not in my backyard” responses and local regulatory challenges—as in OG&E’s partnering with Tinker AFB to install a power plant on base (see Box 3.4). Similarly, community and private partners have leased and used EULs to *take advantage of installation land for building industrial and R&D parks*, as did a North Dakota partnership for building an unmanned aerial system (UAS) campus at Grand Forks AFB (see Box 4.4) and an EUL partnership for a 416-acre office and R&D complex at Aberdeen Proving Ground. In addition, land purchased because of REPI partnerships has been used for state and local parks.

Second, community partners benefit from the *use of installation equipment, facilities, and infrastructure*. For instance, through the EPA for STEM education at Kirtland AFB, University of New Mexico faculty and students have access to base laboratory equipment. As with installations, community benefits from extra equipment often occurs in areas when extra capacity

³⁸ NAS Fallon PAO, “NAS Fallon Economic Impact and Community Involvement,” undated.

³⁹ These activities were through partnerships by the Better Opportunities for Single Soldiers program (which was established in 1989 to respond to the recreational needs of single soldiers). Maryland Department of Business and Economic Development, 2014, p. 15.

is needed because of a rare event—such as for large-scale emergency response incidents, when specialized vehicles (fire trucks, ambulances, helicopters, etc.) are needed at an incident.

Communities benefit from *using a range of installation facilities and infrastructure, including R&D facilities, meeting rooms, airports, churches, child care centers, shooting ranges, and waste processing and transportation infrastructure*. For example, City of Monterey employees use the Presidio of Monterey child care facility; the City of Yuma uses the MCAS Yuma airport through a joint-use airport agreement; at West Point, the Town of Highlands, N.Y., uses the installation's transfer station for town trash; and the Niceville community in Florida will have a new connector road to the Mid-Bay Bridge on Eglin AFB. Communities can have access to more ball fields, golf courses, swimming pools, and other recreation facilities because of installation PuPs, as at Fort Stewart/Hunter Army Air Field, where the public from the City of Savannah has use of the Lotts Island Recreation facility. Communities often use meeting rooms and other specialized facilities for community organizations. For instance, Girl and Boy Scout troops use the installation youth center at Naval Support Activity Annapolis.

Facilitator and Political Help with Federal, State, and Local Governments and Other Organizations

Communities and other partners benefit from installation PuPs that *assist them in gaining political support with federal, state, and local governments and other organizations*, often helping communities acquire federal and state funding and other support for joint activities. Such help is often in areas of mutual concern, such as emergency response or safety, environmental, transportation, and health care systems. For example, consider the El Paso Psychology Internship Consortium, involving the University of Texas at El Paso, the Texas Tech University Health Sciences Center at El Paso, and William Beaumont Army Medical Center (WBAMC) at Fort Bliss, which is training psychologists to enhance mental health services in the region. The installation's involvement helped the partnership acquire \$750,000 from a private foundation.

Such *installation partnership facilitator and political help* has been especially important for local and regional activities to conserve ecosystems and protect open spaces, often in partnerships to address encroachment concerns. In such cases, the military installation has educated local and state governments and other organizations about why these things are important to the military and broader national good—and, in turn, helped acquire political support from them, as at Fort Carson:

Fort Carson buffering has also helped improve conservation partnering and collaboration within the region. They have helped garner state and local governments and community support for the Peak to Prairie and CSP collaborations. As one conservation land trust representative put it: “The Army and U.S. military getting behind the long term vision of protecting these natural resources [such as the CSP ecoregion] help get community and non-partisan political support to protect them. The US military helps to reach non-conservation audiences, such as state and local organizations within Colorado.”⁴⁰

As discussed above, besides political support, such REPI and related partnerships have helped community and other partners acquire federal, state, and local funds for conservation easements, land purchases and other activities that address encroachment near installa-

⁴⁰ Lachman, Wong, and Resetar, 2007, pp. 139–140.

tions and helped communities in protecting open space, acquiring park lands, and protecting ecosystems.

Enhanced Outreach to Communities

Installation partnerships can also provide enhanced outreach to community members that benefits local governments and other installation partners. Many installation partnerships that help with outreach to military personnel and their families also *provide outreach to community members*. For example, Fort Benning's partnership with the Columbus Alliance for Battered Women, Inc. and the Crisis Center of Russell County helps with community outreach because of the sharing of educational materials and working together at community events on outreach.

Similarly, *joint events like energy awareness, Earth Day, recycling, and public safety fairs provide additional information about actions that community members can take*. For example, Fort Wainwright hosting an Earth Day sustainability event with local community leaders in collaboration with Eielson AFB, Fairbanks North Star Borough, City of Fairbanks, and City of North Pole, helps community residents learn about and likely implement more sustainability practices in their homes and lives, like recycling, which helps the community.

In partnerships where the community members use installation natural areas, there often are *environmental education outreach benefits*. For instance, Avon Park AFR's partnership with the state of Florida to allow public hunting, camping, hiking, bird watching, and educational activities on the range helps provide environmental education to the community.

Energy and Environmental Benefits

Installation partnerships that focus on the environment usually benefit community partners, as well. Partnerships that *save energy, water, and other natural resources* often benefit everyone in society. *Some communities and utilities also experience specific organizational benefits*, especially when they have specific resource capacity concerns or conservation goals. For example, Southern California Edison has partnered with Edwards AFB and Fort Irwin to reduce electricity use, which has reduced costs and mitigated brown-out problems from an overstressed utility grid during hot summer months. In addition, the PuP has prevented the need to build another utility plant.⁴¹ Another benefit for energy utility companies is that partnerships can help in meeting renewable energy goals and state requirements. In some states, such as California and Colorado, utility companies have regulatory requirements to invest in renewable energy. Installation partnerships have helped them in meeting such requirements, as with the Fort Carson large-scale solar array project where partner Xcel Energy bought Fort Carson's renewable energy credits to meet Colorado's Renewable Portfolio Standards (see Box 2.2). Because of water shortages from drought and other issues, UESC, ESPC, and other partnerships that conserve water are important to water utility and community partners. For instance, Dyess AFB's ESPC to invest in the use of reclaimed water reduces annual potable water consumption by 160 million gallons, which saves the City of Abilene 2 percent of its potable water supply. Such water savings is a significant community benefit in this drought-stricken part of Texas.⁴²

Partners in installation PuPs benefit by *improving their own and the broader community's environmental understanding through research, education, community outreach, and data-sharing*.

⁴¹ Lachman, Hall, et al., 2011, p. 42.

⁴² U.S. Department of Energy, 2009.

Environmental science research helps the partner who is conducting the research, but also contributes to the broader good, such as State University of New York, College of Environmental Science and Forestry scientists conducting ruffed grouse research at Fort Drum. Public environmental education benefits accrue from partnerships where the installations are working with the community in sustainability and from joint environmental events, like Earth Day and recycling activities that help educate the community.

Another environmental benefit for communities is the *acquisition of federal, state, and local parklands and natural areas*, often from REPI partnerships. For example, Joshua Tree National Park acquired some additional land through a REPI partnership at MCAGCC Twentynine Palms,⁴³ Carvers Creek State Park acquired some additional land through a REPI partnership at Fort Bragg,⁴⁴ and Santa Barbara County acquired additional land for the Point Sal Reserve through a partnership involving Vandenberg AFB.⁴⁵

The broader community environmental benefits that were discussed under installation environmental benefits obviously benefit the community as well. Such partnership environmental benefits include *conserving wildlife corridors, protecting habitat and T&ES, preventing air pollution, helping water quality and water quantity concerns, protecting wetlands and watersheds, and preserving ecological systems*.

Helps Maintain Community Character and Way of Life

Some installation partnerships *help preserve community character and the community way of life*. This may be from contributing to keeping key jobs or industries in a region or a particular lifestyle, such as helping preserve the rural nature of a community through protecting open space and family farms from sprawling development. Many of the REPI partnerships protect open space and help local farmers and ranchers stay in business, which helps maintain a traditional community way of life. For example, at NAS Fallon, community benefits have included “protecting open space, helping to keep land in agriculture, and helping to preserve the rural community way of life.”⁴⁶ Similarly, Fort Carson’s ACUB activities have been important to protecting regional quality of life:

It has even helped with quality of life and preserving community character. Residents of Colorado greatly value their open space, and Colorado Springs has a unique history and sense of community, part of which is at risk of being lost by so much development along the I-25 corridor. The Fort Carson buffering is helping to prevent Pueblo from sprawling into Colorado Springs which helps the two remain distinct communities.⁴⁷

Many of the REPI partnerships have helped protect and maintain “local character,” as at Fort Campbell, Naval Base Coronado in California, and Vandenberg AFB.⁴⁸

⁴³ For more information see: REPI, undated-g.

⁴⁴ For more information, see North Carolina Department of Environment and Natural Resources, “Carvers Creek State Park in Cumberland County opens to the Public Sept. 9,” news release, September 6, 2013.

⁴⁵ For more information, see Santa Barbara Foundation, “County Gem at Point Sal Preserved,” 2014.

⁴⁶ Lachman, Wong, and Resetar, 2007, p. 186.

⁴⁷ Lachman, Wong, and Resetar, 2007, p. 140.

⁴⁸ For more details on which REPI partnerships help preserve and maintain “local character” see Office of the Secretary of Defense (OSD), “Readiness and Environmental Protection Integration,” home page, undated-a. See also individual instal-

Installation Partnership Types That Save the Most Military Money

Given ongoing budget pressures, military leaders are always asking whether PuPs can help save increasingly scarce military funding at installations. As discussed in the previous subsection, there are many other benefits from installation PuPs besides saving money. We did, however, analyze hundreds of existing installation partnerships to identify which types of partnerships save the largest amounts of military money. We found five:

1. installation partner provides significant improvements in service efficiency
2. installation closed the facility, stopped providing the service, or both, and is relying on the partner to provide the service with little to no payment
3. installation leases or sells land or other high-value asset in exchange for monetary or in-kind payment.
4. generosity of the community: funding an installation service or the construction of an installation facility
5. cost avoidance in providing installation capacity

We now explain each of these. Obviously, some of these categories overlap with the benefits discussion, so there is some minor repetition in this discussion.

Installation Partner Provides Significant Improvements in Service Efficiency

When an installation partner can provide efficiency in an installation function or service, such as maintenance, it can save an installation money. That is, if a community or other partner can provide a service to the installation at a cheaper price than it would cost for the installation to do it, then the installation saves money over time. Partners can save some money because of economies of scale, cheaper labor or materials, or just because they are more efficient at what they do. The most famous installation PuP example is the Presidio of Monterey's service contract with the Cities of Monterey and Seaside, during the first two years of which the Army was estimated as saving 41 percent (or almost \$2.5 million) compared with the previous service arrangement (see the appendix of this report for more details on the savings). The Brooks City Base partnership was another well-known example: The base was estimated to have a net cost savings of about 15 percent, or \$8 to \$10 million per year, because it transferred the base land and leased it back with services that were provided more efficiently by the Brooks Development Authority and the City of San Antonio (see Box 3.7).

Efficiencies can also occur when a partner provides a service only once, such as the partner building installation infrastructure for significantly less money than the installation would. For example, a county paved an old county-owned runway (that was surrounded by BLM land) that personnel from a nearby USAF installation planned to use for training. The county paved the runway for \$5,000, which saved the USAF an estimated \$100,000, because it would have cost the USAF installation significantly more to do it.

lation project fact sheets, such as REPI, "U.S. Army: Fort Campbell: Kentucky," fact sheet, undated-f; REPI, "U.S. Navy: NB Coronado Camp Michael Monsoor: California," fact sheet, undated-j; and REPI, undated-d.

Installation Closed the Facility and/or Stopped Providing the Service and is Relying on the Partner to Provide the Service with Little to No Payment

When an installation relies on a partner to provide a service, it may be possible to close the post facility to save both personnel and such building-related costs as maintenance, utilities, and upgrades. If the facility is closed, these costs will be saved, and sometimes such costs can be significant. For instance, Altus AFB in Oklahoma closed its veterinary services on base and partnered with off-base providers to offer veterinary services to military personnel and their families. The base saves an estimated \$100,000 on deferred maintenance for repairs alone because it does not have to upgrade and maintain the building containing these veterinary services. In fact, the building is scheduled for demolition. As discussed earlier, at Fort Huachuca, the post partnered with the City of Sierra Vista's library and closed its main library. Fort Huachuca pays the city each year to provide additional library materials for military members and their families. Even after paying the city library, the post saves more than \$300,000 per year because it no longer has to operate and maintain a library (see Box 3.11).⁴⁹

Installation Leases or Sells Land or Other High Value Asset in Exchange for Monetary or In-Kind Payments

Not surprisingly, installations make the most money by leasing or selling an asset, especially land. Some installations are located in locations, such as scenic coastal areas, where property values are high or installation land is very desirable for a particular reason. In these partnerships, installations often take in-kind payments that benefit the installation directly. For instance, as discussed earlier, the Mid-Bay Bridge Authority wanted to use part of Eglin AFB's property to build a bridge connector road to ease traffic congestion and so traffic would no longer need to go through Niceville neighborhoods. The base worked out a partnership deal: Eglin receives \$30 million payment-in-kind for a land easement deal with the Mid-Bay Bridge Authority for building this new road.

Often, these deals are done through an EUL. They do not have to be in a high-value real estate market, nor in an urban area, as demonstrated by the Grand Sky Project at Grand Forks AFB. Grand Forks County is leasing 217 acres on the western edge of the base through an EUL for developers to build a UAS campus (see Box 4.4). The base return is estimated to be \$12–22 million net present value (NPV) over 50 years, plus \$16 million cost avoidance because the base does not have to remove the existing buildings and other infrastructure. The county personnel's interests and desire to develop a beneficial project for both the base and the community was key to this partnership.

Generosity of the Community: Funding an Installation Service or the Construction of an Installation Facility

As was briefly discussed in Chapter Four, many communities and states want to help installations. In some cases, they have invested large amounts of money to do so. Some of these communities are making such investments because of economic interests, and in the hopes of preventing the installation from being closed in the next Base Realignment and Closure (BRAC)

⁴⁹ It is important to note that in such arrangements, net savings need to be calculated by considering the gross savings of personnel, building maintenance and utilities, and potential upgrade costs, less any payments made because of the partnerships agreements with community providers; and that there may be some lost utility to some of the servicemen and women and their families from the lack of on-post services.

round. Some may want to help military personnel and their families, and others are also trying to help provide for a common good in their community, like increasing regional health care. To illustrate, we provide three diverse examples for Naval Submarine Base New London, Maxwell AFB, and Fort Bliss.

The State of Connecticut spent \$11 million to help build training facilities and other infrastructure at Naval Submarine Base New London in an attempt to enhance its military value so much that it would not be closed (see Box 5.1). At Maxwell Air Force Base, the Montgomery Area Chamber of Commerce Foundation is leading a communitywide effort to fund and build the River Region Freedom Park, costing more than \$500,000, on Maxwell Air Force Base for military families (see Box 3.9). This new park sits on 3.5 acres within a base housing area and consists of three playgrounds, picnic and barbecue facilities, restrooms, pavilions, a soccer field, a walking track, a rope climb, swings, and exercise stations for adults. The community funding consisted of donations from public and private entities. At Fort Bliss, a private foundation provided \$750,000 to help fund the El Paso Psychology Internship Consortium, a partnership consisting of the WBAMC at Fort Bliss, University of Texas at El Paso, and Texas Tech University Health Sciences Center at El Paso. This consortium's objective is to train more psychologists to improve access to mental health services in the region, including providing substance abuse treatment and treating posttraumatic stress disorder, traumatic brain injury, and depression. Interns also work at WBAMC, which benefits Fort Bliss. Obviously, installations cannot ask or expect their communities to fund such items, but some installations are lucky enough to be benefiting from the generosity of their communities.

Box 5.1. State of Connecticut Partnerships to Support Naval Submarine Base New London

In 2007, the State of Connecticut's General Assembly authorized \$50 million to be invested in military value at Naval Submarine Base (NAVSUBASE) New London in Groton to protect it from being closed in a future Base Realignment and Closure round. Part of the mission of the State of Connecticut Office of Military Affairs (OMA) is coordinating efforts to prevent the closure or downsizing of the NAVSUBASE. The state's strategy is to assess and enhance the military value of the installation to decrease its probability of being closed. The state is trying to "reduce the feasibility of closure because DoD [the Department of Defense] simply can't afford to re-create it anywhere else."^a

OMA has worked closely with the base to identify ways to help and areas for partnership. Between 2005 and 2012, the State of Connecticut invested about \$11 million to construct facilities on NAVSUBASE, including \$2.5 million for a facility housing a new submarine bridge training simulation, \$7.7 million for a new diver support facility and boiler, and \$740,000 for a training kitchen for culinary specialists. The simulator is used to train submarine crews in safe navigation by simulating entrances to ports around the world. The state also funded land purchases near the northern and southern boundaries of the installation for \$680,000 from the towns of Groton and Ledyard to prevent future incompatible development.

OMA has also facilitated partnerships to help military families. For instance, Navy families tend to move during the summer so they cannot establish local residency in time to compete in the lottery drawing for places in Connecticut's charter and magnet schools. OMA worked with regional leaders, LEARN (a regional educational service center), and the Military Superintendent's Liaison Committee to address this issue. As a result, the local superintendents implemented a pilot program to hold back a number of places in charter and magnet schools to be made available to highly mobile families when they arrive later in summer months, giving military children a fair chance to be in these programs.

SOURCES: State of Connecticut, 2012; State of Connecticut Office of Military Affairs, "Navy Opens State-Funded Simulator Facility at Connecticut Sub Base," December 6, 2012.

^a State of Connecticut, 2012, p. 18.

Cost Avoidance in Providing Installation Capacity

Cost avoidance in providing installation capacity is when the installation saves money by avoiding having to invest in extra equipment, facilities, personnel, or a combination of the above because it relies on the community's capacity as a substitute. The partnership where an Army installation's helicopter pilots were using the three different community airports for helicopter training is an example of an installation avoiding the high cost of building additional helicopter runways. Through PuPs, installations often avoid costs of investing in additional expensive emergency response equipment (such as fire trucks, ambulances, and helicopters) and specialized manpower that is needed because of a rare event. For example, NAS Kingsville relies on the Kingsville, Texas, SWAT team, so this installation avoids the cost of investing in specialized SWAT training, manpower, equipment, and vehicles. We should note that, in some cases, an installation may experience enhanced service with such a partnership for such additional capacity without a true cost avoidance. This is true when an installation would have chosen not to invest in the extra capacity and just assumed the risk if it did not have a partnership.

Cost avoidance also occurs when the community helps pay to build and operate new installation facilities that the installation shares with the community. We illustrate with two different examples: a research building and a testing facility. MIT paid to build a \$450 million research facility on Hanscom AFB. The Air Force saves the construction cost of building a new research facility and has new capacity that it did not have to invest in. However, we should note that the installation does not avoid the full \$450 million because if the base had paid for this facility, it would not have been as expensive because it is only using part of the facility and likely would have built something smaller. In addition, the base has to pay fees for the research space it uses in the new facility. The Army experienced cost avoidance when GM spent \$100 million to build and operate a hot-weather auto test facility that it maintains and shares with Yuma Desert Proving Ground.

Installations also avoid some of the costs in REPI, buffering partnerships' easement and land purchases because of leveraging partner funds. For example, the Trust for Public Land bought 1,732 acres from the Galbraith Estate on Oahu Island next to Schofield Barracks and its training area for \$25 million. The state and local government and other partners provided \$20.5 million, while the Army and OSD provided \$4.5 million for this land purchase near U.S. Army Garrison Hawaii as a buffer against encroachment. The Army avoided paying \$20.5 million in this deal, and the installation gains important buffer space near its training area that it could not have afforded to provide on its own.

Installation Partnerships: Opportunities, Complexities, and Alternatives

In examining hundreds of different installation partnerships that already exist and are in development, we assessed how all this installation experience offers a range of insights and opportunities for future installation public-to-public partnerships (PuPs). An important lesson for future installation PuPs is that not all partnerships are equal. The more ambitious in terms of scale and complexity a partnership effort is, the more resources and time will be required for development and implementation. In this chapter, we examine this complexity factor and how to address it in future partnerships. In considering future installation service requirements, it is also important to remember that installation partnership options are just one way to provide an installation service and that a range of other alternatives exist. When considering service requirements or developing partnership ideas, an assessment should be made that identifies all the alternatives for providing a service, not just the partnership ones, and evaluate the advantages and disadvantages of each option, not just looking at financial costs (as some have done because of budget concerns). In this chapter, we also discuss the process of comparing installation PuPs with other alternatives for providing efficient and effective installation services and infrastructure.

Range of Opportunities for More PuPs

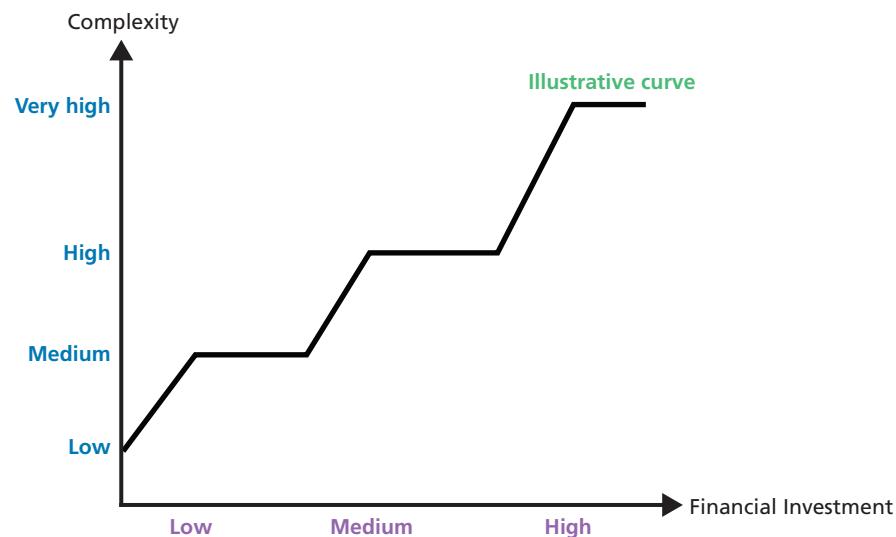
As demonstrated by all the different partnership examples described in this report, a large amount of innovation is occurring at the local level within existing authorities and management procedures to provide a diverse set of installation operations and services. Various installation staff and community organizations have pursued these innovative approaches based on local circumstances—such as the resources available, capabilities, jurisdictional boundaries, needs, and relationships, among others. This experience suggests that many opportunities exist for future partnerships. The thousands of existing installation PuPs demonstrate that installation PuPs have numerous benefits, including improving installation operations and services and saving costs, as discussed in Chapter Five. However, most do not save significant amounts of money (i.e., millions of dollars). Creating installation and community partnerships means investing in a long-term relationship. It takes time, patience, and investment to develop and grow PuPs for additional benefits, especially larger financial savings. In addition, we found that as the complexity of the PuP project increases, including money invested, risks involved, or amount of savings expected, it increases the effort needed to complete the deal. We explain this complexity issue in this section.

First we need to point out that installation PuPs are not always going to work or be cost-effective. Partner relationships may not develop for myriad reasons. Some communities will not have the capacity, skills, interest, or efficiency needed to develop the desired PuP. Other service delivery models may be more cost-effective for certain installation functions and services where the installation is considering a PuP. The military should consider alternatives to PuPs at individual installations if the main objective is to reduce installation costs for providing a particular installation function or service. We discuss this issue in the second half of this chapter.

The Complexity Function of Partnerships: To Reap Large Benefits from PuPs Takes Time and Resources

Given budget declines and military drawdowns, the Department of Defense (DoD) will need to save money at installations if it wants to continue providing existing levels of services and supporting sufficient infrastructure on its installations. Installation PuPs are seen as a way to help save money at installations and help ensure that installations have quality in their services, operations, and infrastructure. However, saving money through partnerships often requires significant up-front investment in developing the partnership and partner relationships. Based on our interviews and analysis of different partnership examples, we found that increasing levels of financial investment or expected return also increase the complexity of the PuP project. Complexity includes the amount of time, staff, and other resources needed to complete the deal. In fact, this situation can be represented by a complexity function (see Figure 6.1). This function is illustrative only, designed to help installations and communities understand that these deals require an up-front investment and may not necessarily develop as quickly as the partners would like, and to help assess and perhaps mitigate some of the factors that increase the time and resources needed for completing a PuP deal.

Figure 6.1
Increasing Financial Investment of the PuP Project Increases the Complexity for Completing the Deal



As the financial investment or payment needed to be made by a partner increases, so does the complexity of completing the PuP deal. Complexity is a function of partner staff time, the approval process, number of people and different organizations involved, and the length of time until the project starts. For example, if there is no money involved in the deal, then the number of people who have to review the deal, the approval process, staff time needed, and other complexity factors are low. As soon as money becomes involved, however (and as that amount increases), more staff time is needed, more people and organizations need to review and approve the deal (such as contracts, financial, and legal staff), and the length of time until the PuP project actually starts is likely longer. There are various approvals at the installation level and for partnerships that involve larger amounts of money, like multimillion-dollar Utility Energy Service Contracts (UESCs) and Energy Savings Performance Contracts (ESPCs), and there are approvals at regional and headquarters levels (or both), all adding time to the process. For military installations, there are safeguards in place to ensure that federal dollars are being spent wisely, so if the deal involves the military installation making payments, especially over multiple years and for larger amounts, these safeguards add time and increase other complexity factors for approving the deal.

We found that not only is there a complexity function for the financial investment, but also a similar complexity function for other aspects of the deal: expected benefits, the purpose and objective of the partnership, partners, risk, and stakeholders. Namely, there could be a curve like Figure 6.1 for each of these other factors also. We explain each below.

- **Benefits:** As the expected cost savings and other benefits to the installation and the community increase, there is a similar complexity function. Increasing the magnitude of benefits likely means that risk and operational interdependencies are greater, so coordinating these activities will require more management effort and time.
- **Purpose and objective:** For more complicated functions, and as the scope of the function or service being performed increases (such as those requiring a high degree of investment, specialization, or skill for service or technology implementation), so does the complexity. For example, if the PuP activity is focused on water infrastructure or a large-scale renewable energy technology project, that involves higher levels of risk and uncertainties than a PuP involving street paving or other standard maintenance function and has a similar complexity curve to Figure 6.1.
- **Partners:** As more partners are involved in the deal, especially from different organization types, the complexity function increases. The amount of time needed for communications, information exchange, coordination, and negotiating the deal increases because (1) more people from diverse organizations are involved, and (2) they will likely have different review and approval processes, information requirements, evaluation criteria, and risk and financial constraints. A regional partnership usually would have a high number of partners on this complexity curve, creating a high complexity factor. This is likely one of the reasons regional partnerships are often less ambitious in their scope of objectives and purpose. Namely, it is hard enough to get two to three partners to agree on issues and work together; when you have more partners and focus on a region, the challenges in reaching an agreement increase.
- **Risk:** If the proposed PuP activity involves a large number or high level of risks, the complexity would also increase similar to Figure 6.1. Partners need to figure out who assumes how much of each risk. The different partners' lawyers and financial personnel may have

diverse views on how to handle the risk. Often, more review, negotiation, and approval time would be needed to address the more complex risks.

- **Stakeholders:** If the proposed PuP activity is expected to affect stakeholders, then the complexity goes up with the amount of impact and number of different stakeholders potentially affected. For instance, if the proposed PuP could potentially affect a large number or a key stakeholder group's jobs, like federal employees, then the complexity goes up. As with financial concerns, the federal government has safeguards in place and in this case they help protect federal employees and ensure they are not being treated unfairly in any process that could affect their jobs. Or there may be many stakeholder groups with different interests that are affected, so balancing the various interests may be complicated and time-consuming.

For a given partnership agreement, one or more of these factors could be complex. If a partnership is being developed that has several complex factors, then the overall complexity of the project could be very high.

How to Simplify and Shorten the Partnership Development Process of a Complex Partnership

Given these complexity functions, how can installations that are developing PuPs help lower where they are on this complexity function, or change the function's shape to simplify and speed up a given PuP development process? Namely, how can the complexity challenges be mitigated or addressed to reduce the amount of time and resources needed to complete a successful installation PuP deal? Based on our analyses of different partnership processes, we found that there are a number of things that help lower a PuP deal's location on this complexity function. Namely, these things help reduce the time and effort required to get things done and reduce the overall complexity.

First, if the PuP deal is being done through a well-developed Office of the Secretary of Defense (OSD) or Service program, such as Readiness and Environmental Protection Integration (REPI), EPA or UESC programs, preexisting procedures and experiences could mitigate the costs of setting up a partnership. Having a formal established process and organization to help develop and implement installation PuPs helps a lot. These programs have established processes to develop the necessary agreements and to help manage the challenges of a complex partnership deal. In addition, there is experience and expertise in place to address any hurdles that might arise. Unfortunately, for large or really complex deals, such as those that involve millions of dollars of investments, it is not going to lower the complexity function significantly because required federal processes are in place to safeguard federal investments. However, the programs can help streamline the process and reduce its uncertainties. The fact that the Services, especially the U.S. Army and U.S. Air Force, are working on developing official programs and processes for implementing deals under Sec. 331 of the National Defense Authorization Act (NDAA) of 2013 will help lower the complexity for future deals. Since these Sec. 331 (revised by Sec. 351 in NDAA 2015) deals are still new and the programs take time to develop, there still will be a lot of challenges that need to be worked out. As these are addressed, the Army and Air Force can incorporate these solutions into the process. As the organizational literature shows, pursuing innovative and new ideas always takes longer.

Second, if there is installation personnel experience in doing the same or similar PuP projects, that can help lower the complexity. These staff understand how to implement a partnership and have successfully dealt with key road blocks in the past, so they will know how to do

it again, and more efficiently.¹ It helps to have experienced subject matter experts who understand the partnership's purpose, performance desired, and related risks, and to have financial, legal, and contracting staff who have executed similar PuP deals and know how to deal with novel approaches and some of the associated challenges.

Third, having Service headquarters and installation leaders support the PuP deals can lower complexity because they can ensure the appropriate level of resources and expertise are available, as well as help troubleshoot barriers that come up during the PuP development process. Installation commanders' support can communicate the partnership's value, bolster staff efforts, and help address installation barriers, such as motivating staff to complete the deal, even those who do not like change and may be stalling to stop the project. Such headquarters and installation leadership support is especially useful when it comes to legal, financial, and contracting staff who play a key role in reviewing and approving the deal. For example, a problem that has occurred with some UESC deals at some installations is that the contracting staff were not aware of UESCs, did not know about the UESC authority, and did not think they were legal. Having headquarters contracting staff that know about, support, and share information on UESCs can quickly help get installation contracting staff on board for UESC deals.

Fourth, for PuP deals that involve diverse stakeholders, complexity can be lowered if the installation has a well-developed process for dealing with those different stakeholders. For instance, if there are union concerns with the PuP deal because it could affect certain employees' work situations, then having a good process for engaging and communicating with these union representatives can help address this complexity factor.

However, some stakeholder processes, like the National Environmental Policy Act (NEPA) process, can actually be viewed as adding time and significant resources to a project. This can be true especially if an Environmental Impact Statement (EIS) is required for the project because of the required analysis and public meetings and comment periods in this process. However, the NEPA process is a legal federal requirement that is designed to protect the environment and incorporate the views of stakeholders, which is an important legal safeguard for implementing large federal projects while ensuring environmental stewardship. It also can help deal with potentially contentious stakeholders that could derail a project if it were not for the safeguards of the NEPA process.

Lastly, installations may want to barter for an exchange of services (where appropriate and legally feasible), so military funds are not needed. With such deals, problems in processing and providing funds, cutting checks, using Defense Finance and Accounting Services, etc., are avoided. This is the best way to lower the complexity of a project. However, even with a bartering situation, it is important to include safeguards in the deal to ensure that both partners are receiving the expected benefit from the partnership. Also, in such partnerships, the value and delivery of services is often harder to validate, track, and record than dollars would be, so a well-written agreement about the exchange is key. A good example of how an installation bartered to exchange services for mutual benefits occurred in a public works partnership between Fort Bliss and the City of El Paso, Texas (see Box 6.1). This example shows how the installation and city worked out an equitable deal to help each other in different areas based on their different needs and strength.

¹ Unfortunately, given installation staff turnover in some areas even when an installation has successfully implemented a partnership, the experienced staff may have left the installation before future partnership activities are developed.

Box 6.1. Fort Bliss and the City of El Paso Public Works Partnership

In January 2000, the City of El Paso, Texas, and Fort Bliss signed a memorandum of understanding (MOU) in which they agreed "to work together to integrate certain mutually beneficial public works operations and equipment and physical assets for their mutual benefit." Fort Bliss allowed the City of El Paso use of its heavy-equipment vehicle wash rack to wash city heavy-duty vehicles and its "tub grinder" to dispose of Christmas trees, branches, and other vegetation. In exchange, the City of El Paso provided pothole maintenance on Fort Bliss proper and some other street maintenance services as mutually agreed upon. The city also provided, upon request, some personnel and equipment at the Fort Bliss landfill to assist in the fort's Christmas tree and other mulching operations. In addition, during the city's marketing campaigns, they provided Fort Bliss with promotional materials for the Christmas Tree Recycling Program, Household Hazardous Waste Collection Day, Texas Recycles Day, etc.

In this partnership, safeguards were directly written into the MOU to ensure that both partners received the expected benefits from the deal. "To ensure an equitable exchange of benefits," Fort Bliss and the City of El Paso agreed to "attach a dollar value to the benefits each provides," "record the benefits received and provided," and exchange these records. The records are then "subject to mutual review and adjustment on a quarterly basis." The MOU also stated that "the exchange shall not include money."

SOURCE: Fort Bliss, "Memorandum of Understanding," between the City of El Paso and U.S. Army Air Defense Artillery Center and Fort Bliss to integrate certain mutually beneficial public works operations and equipment and physical assets, January 18, 2000.

Comparing Installation PuP Opportunities to Other Alternatives

The reason for installations to invest in PuPs should be to develop long-term collaborative working relationships that maximize the net benefits of operations, services, community coordination and other benefits for both the installation and community. This is inclusive of cost savings while recognizing that cost minimization is not the only important element. While many PuPs save some installation funds because of the sharing of resources with partners and other efficiency gains, monetary savings are often modest. So far, only a small number of installation PuPs have saved really large sums of money (i.e., greater than half a million dollars), and these partnerships have often taken years to develop and evolve. Therefore, if military leaders strictly want to save significant amounts of money in installation operations and services, then they need to consider a range of alternatives for providing installation services and infrastructure, not just installation PuPs. As we have indicated, the value of PuPs extends beyond the financial, and installation PuPs are not always going to succeed or be cost-effective. Some communities may not have the capacity, skills, interest, risk-sharing ability, or efficiency needed to develop the desired PuP. Other service delivery models may be more cost-effective for certain installation functions and services where the installation strictly seeks cost savings.

For all these reasons, the military should consider alternatives to PuPs at individual installations if the main objective is to reduce installation costs for providing a particular function or service. We present some basic analysis steps for such a process. Then, we use a small case study example to illustrate how to apply the steps. The case study is for library services at installations. This case study is not a full analysis of library services; rather, it serves to illustrate the types of questions to ask and steps to take.

We chose libraries as a case study because there have been a number of partnership activities regarding libraries, as well as likely competitive alternatives to consider. In fact, in an effort to save costs, some installations have considered closing their library or partnering with communities for library services. For instance, early in 2014, Joint Base San Antonio (JBSA) proposed closing its three libraries because of budget cuts (custodial and grounds maintenance were also reduced). Cost savings resulting from the libraries' closure were estimated to

be around \$1.3 million per year. Because of such budget concerns and because of the benefits of collaboration, the city and the base signed a memorandum of agreement (MOA) to waive residency requirements, allowing JBSA personnel and their families to use the services of the San Antonio Public Library System, which enjoys high customer satisfaction and is innovative. For example, it has partnered with other community groups and installed digital media outlets throughout town, including the YMCA, an art museum, a senior center, and the airport, where even nonresidents are provided access.²

To compare the alternatives for providing an installation service with partnerships and other options, we recommend the following steps to the analysis:

- Enumerate the Full Range of Services Provided by the Facility.
- Identify the Different Types of Partnerships and Other Alternative Options for Providing the Facility's Services.
- Assess the Different Costs and Benefits of Providing the Facility's Services for Each of the Alternative Options.
- Define Selection Criteria for the Alternatives and Assess and Compare the Alternatives.

These steps are similar to a military business case analysis. While an in-depth business case analysis may not be warranted in certain situations (especially when analysis time or cost could be large relative to the costs of the services of interest), adhering in principle to the established process as closely as possible is advised.³ Obviously, there is a cost to performing a business case analysis, both in terms of staff requirements and the time to complete the analysis process. For example, an installation staff member working on developing an installation partnership may not have the time or resources to assess all the possible alternatives and different costs and benefits. However, it is important to try to identify the most-feasible alternatives and quantify the advantages and disadvantages to ensure that the best possible decision is made for that installation service.

We discuss each analysis step below in the context of the installation library example. The Army's Office of the Assistant Chief of Staff for Installation Management (OACSIM) developed a Library Cost Benefit Analysis Team to assess alternatives for providing library services at a range of Army installations in more-efficient ways to save costs. Our discussion incorporates some ideas from this team's approach. This Army library assessment process is a useful model to serve as a starting point for the development of such an analysis process.⁴

² James Aldridge, "San Antonio Rolling Out New 'Digital' Library," *San Antonio Business Journal*, July 24, 2014a; James Aldridge, "When It Comes to City Services, San Antonians Love Their Library," *San Antonio Business Journal*, August 29, 2014b.

³ For guidance on performing cost benefit analyses, see: U.S. Army, "U.S. Army Cost Benefit Analysis Guide," Version 3.1, April 24, 2013; USAF, Air Force Instruction 65-501, "Economic Analyses," August 29, 2011a; USAF, Air Force Manual 65-506, "Economic Analyses," August 29, 2011b; USAF, Air Force Instruction 65-509, "Business Case Analyses," September 19, 2008a; USAF, Air Force Manual 65-510, "Business Case Analyses Procedures," September 22, 2008b.

⁴ We should note that assessing the appropriateness of the specific details of the OACSIM's Library Cost Benefit Analysis Team's methodology, such as the business rules used, was outside the scope of this study. However, we found the process itself a useful model.

Enumerate the Full Range of Services Provided by the Facility

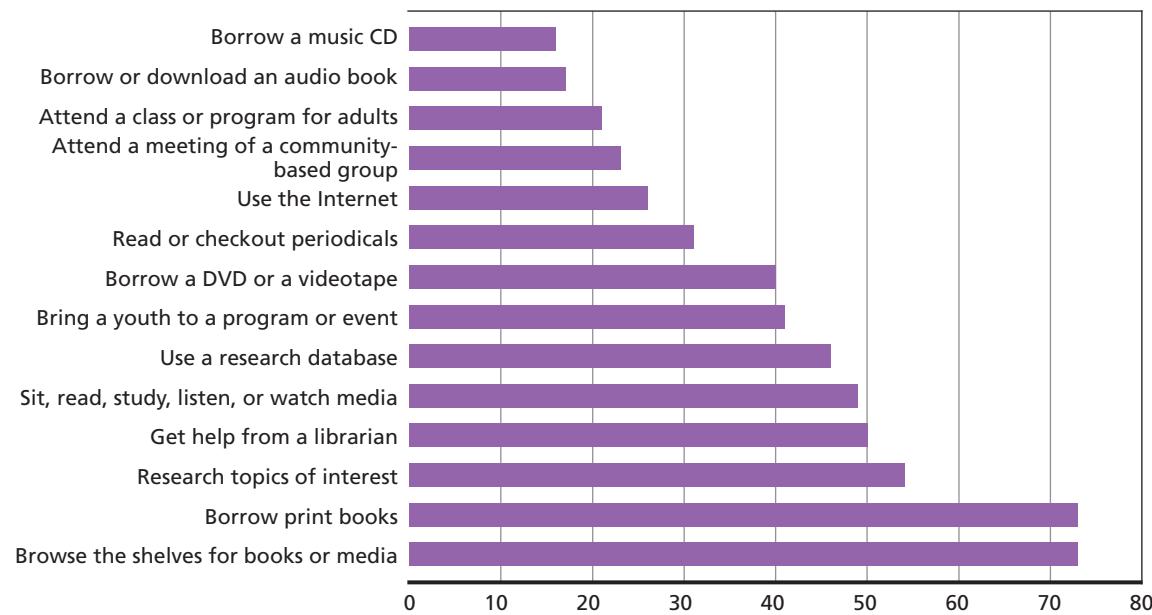
The first step is to identify all the services provided by the facility and its personnel. This step should include ensuring that interdependencies between the different services are recognized and considering what the needs and uses of the installation service will likely be in the future.

In applying this step to library services, we need to determine what services installation libraries actually provide. Many people may assume libraries are not used much anymore because people now access books electronically, but public and installation libraries serve many more functions than just supplying books to people. For example, the role of public libraries is commonly thought to be to:

- support the education and socialization needs of society
- meet the informational needs of a broad spectrum of citizens
- promote self-education
- satisfy the popular tastes of the public.⁵

This rather broad agenda will be further refined based on the specific interests and needs of the library's patronage, which can also be quite diverse. Figure 6.2 presents how library patrons have used the services offered at libraries. Fifty-six percent of those Americans surveyed had visited the library in the previous 12 months for the purposes listed on the figure.

Figure 6.2
Activities That Americans Who Visited Libraries Engaged In



SOURCE: Kathryn Zickuhr, Lee Rainie, and Kristen Purcell, "Library Services in the Digital Age," Pew Center for Research, January 2013.

RAND RR1419-6.2

⁵ Richard Rubin, "Foundations of Library and Information Science," New York: Neal Schumann, 2004, pp. 297–98, cited in Elizabeth Nelson, "Library Statistics and the HAPLR Index" *Library Administration and Management*, Vol. 21, No. 1, Winter 2007, pp. 9–12.

In particular, libraries provide physical or electronic access to information—books, music, databases, the Internet, and other resources. Library personnel perform a diverse set of functions, including outreach to the community and helping patrons access information for pursuing personal interests, well-being, specialized training, social services, academic advancement, and employment opportunities or work advancement. Libraries also host programs to promote literacy, academic pursuits, computer training, and overall well-being for both children and adults. And finally, the facility provides a venue for quiet reading, studying, working, social services outreach, or collaboration. Some libraries even network and collaborate to make specialized or high-cost resources and equipment available to patrons. This suggests that libraries utilize a combination of physical, human, and electronic assets to offer a large portfolio of services to communities, depending on community needs and the overall resources available.

Next, we discuss the range of services provided by an installation library to illustrate how varied they can be. The Woodworth Consolidated Library at Fort Gordon, Georgia, exemplifies the breadth and depth of services that may be offered at an installation library. Woodworth Consolidated has a dual mission to support Family and Morale, Welfare, and Recreation (FMWR) Command functions and Training and Doctrine Command (TRADOC) training. Moreover, the library was named the Federal Library of the Year in 2011 because it exhibited best practices. In that year, the library generated significant increases in program attendance and in use of electronic, materials, and technology resources (18 percent, 40 percent, and 300 percent, respectively) through a combination of staff outreach, partnerships with community service organizations, and redesign of interior spaces.⁶

FMWR-oriented activities supported by the library include access to computers and the Internet, reference services and research assistance, books, compact discs, digital video discs (DVDs), periodicals, ebooks, meeting rooms, photocopying, and a large array of special programs for adults and children. Throughout fiscal year 2011, the library offered nearly 100 classes on the use of electronic resources and 150 special programs—including preschool story hours, puppet and music shows, age-appropriate book clubs, board game sessions, craft making, seasonal activities, and yoga classes—that were attended by more than 12,000 participants. Special child and youth programs, such as work-study sessions, resume and interview training, youth literacy, and those focused on families of deployed soldiers were also offered in partnership with Child, Youth, and School Services (CYSS) and Army Community Services (ACS). Several postwide events were planned with support from the library personnel.

In addition to the FMWR-oriented services, the library includes in its mission “to provide, develop, and maintain strategic knowledge management resources in support of the training and educational missions of the US Army and TRADOC; to tactically serve, aid, and promote superior education of Army soldiers and students.”⁷ The library personnel provides mission support for TRADOC command activities totaling 60 hours per week in the form of library personnel direct support, the purchase of academic and training support materials, and research services for training schools on post. The Command and General Staff College satellite course alone required more than 3,500 materials. Two dedicated computer stations were used for test proctoring, supporting more than 175 students per month. Clearly, the Woodworth library has developed a wide range of services and programs for soldiers and families

⁶ Library of Congress, “News from the Library of Congress,” May 11, 2012.

⁷ U.S. Army, “Fort Gordon Consolidated Library Services,” undated-c.

to support both well-being and mission-training objectives. The library personnel have also successfully reached out to the community to advertise the library's programs and help ensure their usefulness. Accessibility is another factor that contributes to libraries' value.

This Fort Gordon library example shows how installation libraries can help support other services and function on an installation, including its military mission. Any assessment of an installation library would need to understand all these different uses of the library and who the users are to be able to assess what the implications of any proposed changes in service mean for all the library customers, including other organizations and functions on the installation. Such an assessment should look not just at existing library services, but also what needs and uses there will be for installation library services in the future.

Identify the Different Types of Partnerships and Other Alternative Options for Providing the Facility's Services

The next step is to identify all the different types of options for providing some or all of the facility's services. This can include different types of partnership agreements, contracting out for the services, and changing existing services. It is important to be creative and try to identify new ways of doing things. We should note that the different options could include efficiency and effectiveness changes that might change the amount or quality of a service.

First, consider alternative service delivery options that may save money, including changes to the installation library services (or the outputs). Ideas to explore include simple cost reductions, such as reducing library hours, staff, and the range of services offered.

A second option is to seek library efficiencies, such as expanding the use of interns or volunteers, adding cost-reduction technologies through modernization, or eliminating rarely used services. Another measure to improve library efficiency may be to revise OSD, Service, or installation library standards and functions to eliminate outdated or underutilized requirements, or providing greater local flexibility to meet the needs of patrons. This approach may be especially relevant when one considers the technological changes that are occurring, as well as the changing demands of patrons. This option would require headquarters involvement and would have implications for multiple installation libraries.

Third, installation libraries could also save money through economy-of-scale savings achieved through partnerships with community libraries. Such savings may come from shared physical infrastructure, assets, or electronic resources. For example, an installation may provide a small amount of funds to participate in a regional library consortium and leverage community funds. Two other examples from the partnerships discussed in Chapter Three are Robbins AFB in Texas, where library patrons can borrow books from Houston County Library, and at Fort Belvoir in Virginia, where library patrons can access Fairfax County Library computers. Another type of installation library partnership involves saving money by using a partner's library personnel, such as Hill AFB in Utah, which has enhanced installation library services because of library interns from local universities (see Box 3.10). All of the options discussed in the preceding paragraphs would affect both the services offered and the costs to provide them.

Fourth, ways to provide a service without requiring a separate facility should be considered. Historically, installations have had separate buildings for different services, but this comes at a cost. Buildings can have high costs to upgrade, maintain, and operate, which includes increasing costs for utilities. One of the lessons learned from ongoing partnership activities is that if a building on the installation is no longer needed to provide a service, significant savings can be achieved by no longer maintaining and operating that building. For example, in

its veterinary services partnership, Altus AFB in Oklahoma saved an estimated \$100,000 on building upgrade and maintenance costs by closing a building. Installations can realize potentially significant savings from consolidating services into fewer buildings and smaller spaces. In the library example discussed here, library services could be colocated into another installation facility, such as a recreation center, and then the installation would close the separate library building. Such an option could be combined with more reliance on digital books and media to reduce the building space required for the library. This approach can be a viable option at many places, especially because there is less demand for hard-copy books and less space is needed for a library's physical inventory. The effect of these changes on service quality will depend on the implementation specifics. Services may be enhanced because collocation may afford easier access. On the other hand, if the library is moved to an out-of-the-way location or a congested area, access may be reduced.

Third, what are the partnership, outsourcing, or other options for someone else running the service on the installation? For libraries, options to consider include privatizing, contracting out, or creating a community partnership for running the installation library when this option saves money. Since libraries provide a public service that usually does not generate enough revenue to cover costs, privatization is not likely to be a cost-saving option. Similarly, the installation contracting out for library services is not likely to save much money, but may be a viable option at some installations. However, a nearby community or university might be willing to take over running the installation library because of the economy-of-scale benefits and the advantages of allowing its customers access to the installation library and its materials. This option is likely to be more viable.

Fourth, different alternatives for discontinuing library services on the installation and relying on community libraries could be considered. One alternative is to close the installation library and partner with the community library for military needs, providing the community library with funds to purchase special materials for military installation customers, as Fort Huachuca did with the City of Sierra Vista in Arizona. Another option could be for the installation to close the library, donate its collection to a community library, and have military customers use the community library instead. Obviously, these options will differ in terms of accessibility, service levels, and costs to the installation and various stakeholders.

Assess the Different Costs and Benefits of Providing the Facility's Services for Each of the Alternative Options

The next step is to assess the different costs and benefits of providing the facility's services for each alternative, including both quantifiable and nonquantifiable costs and benefits. Costs and benefits may be financial, quality, patronage, accessibility, risk, political, security, management, or in other areas. Once the different options to provide library services are identified, installation staff should assess the pros and cons of each option, looking not just at financial costs (especially since these options will likely not offer comparable benefits), but at all the costs—including risks, morale, and lost services—and the full range of benefits, including reduced risk, improved morale, and better services. A key part of this process is to establish key assumptions and limitations (or boundaries) for the analysis, including functional performance desired. Knowing who and where the customers are for installation library services is also important. For example, options are likely to have different implications for military families who live on the installation compared with those who do not.

So, what are the different costs and benefits of the library service alternatives? We will not enumerate them all here, but merely give some illustrative examples of different considerations. Options that improve the library efficiencies will likely save library costs, but also may reduce services provided to customers, depending on what they are. For example, reducing library hours will save costs mostly through manpower reductions, but will also mean reduced services because the library is open fewer hours. Modernizing a library may have some initial investment costs, but save money in the long run. Collocating the library services in the recreation center will have accessibility consequences that could be advantageous or disadvantageous. The location may be more accessible to more military customers while less accessible to a few others.

Any option that closes the installation library without providing services elsewhere on the installation means military library customers have to go off the installation for services, which likely limits accessibility for some of this group. A library closure option most likely saves the most money but may have increased security risks and involve the loss of some services, customer access, and military sense of community that were provided by the on-site library. Some new services may also be gained; the community library may offer some services that the installation library did not. Both near- and long-term implications need to be considered. Over the longer term, there is likely to be a loss of some library services that were provided for military unique needs, especially if no military funds or partnership was involved. In addition, whenever an installation relies on the community for a service, there is always the risk that the community may decrease that service in the future.

Define the Selection Criteria for the Alternatives and Assess and Compare the Alternatives

Once the costs and benefits of all the alternatives are calculated, the last step is to define the selection criteria for the alternatives and use those to assess and compare the alternatives. Different alternatives are likely to have different levels of services (benefits) and costs. Installation management needs to decide what the trade-offs should be and what is most important in terms of the potential benefits and costs of providing the service a different way and in potentially different amounts. For instance, is saving money worth losing or having a risk of losing some amount of installation services or other negative effects (such as decreased accessibility)? If so, what level of financial savings warrants a decrease of installation services or other negative effects? How important is maintaining the sense of military community? How important are security considerations? Is serving more customers more important than the quality of the service? What about variations in costs and benefits among different customer groups (such as single military personnel, military families, retirees, and civilians who work on the installation)?

In the case of library services, it is possible that different categories of military customers benefit while others lose out under each of the alternatives. Which military customer group's needs and uses are going to be weighed more highly? For example, consider an Army installation where three-quarters of single soldiers live on post and three-quarters of married soldiers and families live off the post. An option that closes the library on post while providing extra military materials to a community library will likely benefit married families more than single soldiers, while an option that moves library services to an on-post recreation center that is used more by single soldiers may benefit that group more than military family customers. If the costs for both options were the same, which one would be selected?

These sample questions illustrate the complexity in the decision criteria in evaluating options for changing installation services. It is not an easy process. However, using a business case analysis process with clear definitions of the decision criteria helps installations understand the full range of implications of the decisions.

The bottom line is that, given budget pressures, decisions are being and will be made to save money by changing installation services and operations. It is important to assess the full range of feasible alternatives based on local installation service uses, needs, opportunities, and capabilities to ensure that the installation services can be maintained as much as possible, whether through partnerships or other options, despite declining budgets.

Barriers to Installation PuPs

In this chapter, we present a summary of the main barriers that installations have faced and continue to face in trying to develop and implement public-to-public partnerships (PuPs). These findings were drawn from numerous interviews with Department of Defense (DoD) personnel (at both the installation and headquarters levels) and with installation community partners, as well as from reviewing DoD policies, regulations, and partnership documents. RAND analysts also reviewed relevant trade press, conference proceedings, and academic literature about partnerships, focusing on those involving military installations.

Installations and their partners face a range of challenges in trying to develop and implement successful partnerships. First, there are general challenges; these are ones that many organizations have to address when trying to develop partnerships, such as cultural differences between partners. Second, there are challenges from the community partner's perspective and those from the installation's perspective. Partnership agreement and contract issues are often another major challenge to installation partnerships. Lastly, there can be challenges from the federal policies, legislation, and regulations that military installations must follow. We discuss each of these challenge categories below.

General Partnership Challenges

Installation PuPs face a range of general challenges that are often common to other partnership activities. For discussion purposes, we have grouped them into five categories:

1. cultural differences among potential partners
2. resistance to change by individuals and groups
3. partner(s) not able or willing to make the commitment level required
4. management and sharing of risks
5. place-specific partnership opportunities and obstacles.

Cultural Differences Among Potential Partners

Military and community cultural differences are often major challenges that need to be addressed in creating and implementing installation PuPs. *Cultural differences* refer to differences in the partner organizations' values, social environment, managerial structures and practices, and both the legal and unwritten procedures followed. *Organizational culture* affects

decisionmaking and the distribution of authority, risk-taking, innovation, and how employees interact with each other and outside parties.

We explain four main areas of cultural differences: decisionmaking processes; legal authorities and processes; accounting, financial, and contracting procedures; and language and terminology.

First, with regard to military installations and communities, decisionmaking processes are usually different. Installations have to deal with their federal military Service bureaucracies, which for more-complex deals (as discussed in the last chapter) often involves getting approval from regional and/or headquarter organizations—a process that can be time-consuming and slow. Such military decisionmaking processes may be a mystery to community partners. Differences also arise with local government partners, especially those who are elected officials, because they are often more directly tied to the local political process and people in the community, and installation personnel often do not understand how to deal with elected officials' processes. A specific example illustrating this type of difference is how the partners deal with the media. Elected officials are sometimes more likely to issue statements to the press about an installation partnership deal before it is final and military installation personnel are ready to go public. In a few cases, community personnel have released details about installation PuPs before the deals had gone through the formal military approval process, which created problems for installation staff.

Second, the legal authorities and processes with which military installations and communities deal are often different. DoD and other federal agencies have many complex regulatory and legislative requirements that they must follow that can affect partnerships, as is discussed later in this chapter.

Third, military installations have specific accounting, financial, and contracting procedures to follow, which are also often different from the processes that a state or local government partner must follow. In one instance, installation personnel were required to perform a Business Case Analysis (BCA) process of the potential partnership arrangement, which is a standard federal government requirement. This BCA took six months to complete, whereas the city's cost-analysis process tool, which was much simpler, took only two weeks. In this example, city staff were frustrated and confused by the installation's BCA process.

Fourth, some of the concepts, terminology, and language related to partnership arrangements that are used by the military and the community can be very different. For instance, the military tends to use many acronyms and different terms, like FAR (Federal Acquisition Regulation) and DFAS (Defense Finance and Accounting Services), that community members may not understand.

Resistance to Change by Individuals and Groups

A common problem for most partnerships is that people do not like change and often resist it. Installation partnerships can face resistance to change by individuals or groups that try to sabotage or slow down the process. Both community and installation personnel may perceive a partnership as a threat to the control that they have as individuals, or that the organization they work for has in performing the activity. For example, in the International City/County Management Association (ICMA) surveys about cities intergovernmental agreements (discussed in Chapter Two), the most common obstacle that the cities faced about such agreements was concern about losing control over the services to be acquired from another juris-

dition and whether they had the capabilities in-house to oversee the agreements.¹ Similarly, some personnel may feel risk-aversion toward new or untested relationships, administrative procedures, and approaches.

Such resistance to change is common in the workplace. Some installation personnel have fears about change for a variety of reasons. Sometimes, they fear that a partnership could lead to a loss of installation jobs. For instance, at one Air Force base, installation management was trying to establish a partnership wherein a community would provide a given service instead of the base. Base management was looking at the service from a financial standpoint: The on-base service was losing money, and it appeared that the community could provide an enhanced service at a lower cost. The base service manager, on the other hand, did not want to consider the possibility of cutting any base staff and resisted providing the operational costs for the service, focusing on protecting staff positions and operations without considering costs. However, it was unclear if anyone would even lose a job. Very few staff positions were involved, and those few people probably could have been reassigned to similar jobs elsewhere on the installation, as was the case in a similar partnership at another installation. In the same vein, cities implementing intergovernmental partnerships have faced opposition from employees who produced the services in question in-house.²

Partner(s) Not Able or Willing to Make the Commitment Level Required

A partnership is more than a contractual relationship. It takes time to develop, requiring commitment by both partner organizations as well as by the individuals who are creating and executing the partnership. Both organizations need to be willing to invest the time and resources in the partnership so that it can effectively pursue its goals. Resources can include funding, equipment, facilities, infrastructure, and manpower. Both installations and communities can and have faced challenges in committing to a partnership process, especially being able and willing to invest the resources. Since a partnership is a long-term relationship and investment (that often builds on initial personal relationships), leadership support is key. Individuals in both organizations need to have the motivation and drive to get the partnership started and to keep it sustained by overcoming the obstacles it is likely to encounter. Usually, a partnership needs a champion (or champions)—often a leader or functional personnel—who can facilitate the partnership development, bridge the cultural divide, and keep others motivated, especially during the challenging times within the partnership’s development and execution process. For the community, that champion may be an elected official, like a mayor, or a key city staff member, like the city manager or a manager in the functional organization primarily responsible for the partnership (for example, the head of the Department of Public Works [DPW]). Similarly, the champion for an installation may be the installation commander, his or her deputy, or a manager of the main partnership functional organization, like the head of DPW or Morale, Welfare and Recreation (MWR). If one organization is not willing to invest in the relationship or lacks leadership support or partnership champions (or, worse, if any of these are true for both organizations), the effort will likely not be as successful.

¹ Warner and Hefetz, 2009. We should note that, at times, these concerns are not completely unwarranted. However, they can be overcome through developing the partnership relationship, formal agreements specifying performance objectives, monitoring activities, and proper resourcing.

² Warner and Hefetz, 2009.

Financial resources invested in the partnership reflect another aspect of commitment. Installation PuPs often require some start-up funds to develop and implement the projects. Some partnerships may have dedicated champions from the community and installation but lack basic funding to develop and implement the partnership. Given tight government budgets, it can be challenging for installations and their local government partners to find such seed money.

Management and Sharing of Risks

Another key challenge is how to manage and share risks associated with the partnership activities. The partners need to figure out how to apportion and manage the cost uncertainties, legal liabilities, and other risks in the contracts and agreements for the partnership. Installation partnerships may involve sharing manpower, space, facilities, infrastructure equipment, or some combination of all of these. With such shared activities, there is always the risk of an accident where something breaks, someone is injured, property is damaged, or the environment needs to be cleaned up. There may also be some elements of financial risk, especially when partnerships require an additional investment in long-lived plants and equipment. Which partner has the responsibility to pay the costs of such injuries, damages, and cleanup? What would happen to long-lived investments if conditions change?

The partnership agreement often includes language to address such liabilities. Often, agreeing on this language can be a major barrier to completing a partnership deal. Government lawyers and contracting officers often have specific legal language they want to include in a contract or other agreement to limit the U.S. government's liability. For example, a standard liability clause for a military installation could include such language as the following: "The U.S. Government will not assume or be held responsible for any loss of equipment or money by the partner and that the partner agrees to hold harmless the installation, the Service, and the U.S. Government from all liability, loss, costs and obligation of any and every kind arising out of any such injuries and losses, including death, however occurring, whether caused by the negligence of the staff members or otherwise."³ Such statements are designed to protect the installation and federal government. State and local government partners often have similar language. However, when partners' lawyers and contracting personnel review the partnership, there is often disagreement over such language and how to share risks and liabilities. Such disagreements can kill, delay, or increase the costs associated with a partnership arrangement.

Place-Specific Partnership Opportunities and Obstacles

Another challenge for military installations is that the partnership opportunities and obstacles are often place-specific and based on the unique circumstances of local installation and community needs and strengths. Every installation and community's circumstances will differ regarding the range of services and functions that they perform, how they perform them, the resources they have, their partnership needs, their interests, what capacity and resources the community has for that given service, and the installation and community expertise. The environmental circumstance will also be different in terms of temperature, geography, flora and fauna, locations of people and services, etc. All these different factors can affect the opportunities as well as the obstacles to creating partnerships. For example, installation partner-

³ This sample language came from a military installation MOA.

ship opportunities for sharing education, health care, or emergency response assets depend on where they are located and what excess capacity and resources the installation or community has. If the community facilities are too far away or lack sufficient capacity, such factors can be a barrier to an installation partnership.

Sometimes this uniqueness of the local circumstances makes it difficult for the installation to try to replicate a successful partnership that was conducted elsewhere. It also means that developing and implementing partnership efforts often require local knowledge and expertise that installations and the community may lack because of staffing issues (discussed more below). For example, installation and community personnel need to have local technical and financial expertise or assistance to be able to properly analyze, evaluate, negotiate, and implement a partnership for developing and implementing a large-scale renewable energy or regional transportation project. This local uniqueness also makes it a challenge for the Office of the Secretary of Defense or the Services to supply specific guidance to installations on how to develop and implement installation PuPs.

Community Challenges to Participating in Installation Partnerships

Communities face a range of challenges in trying to develop and implement PuPs with installations. For discussion purposes, we have grouped them into five main areas:

1. little community interest or political support for partnering with the installation
2. staffing issues within the community
3. communication roadblocks with military installations
4. frustration with slow military decisionmaking and approval processes relative to community processes
5. constraints on community capacity and expertise.

Little Community Interest or Political Support for Partnering with the Installation

In some cases, the community does not have an incentive to, or does not want to, partner with the installation—possibly because of individual and group attitudes of elected officials, citizens, or employees. Some individuals in the community may want to partner with the installation, but there may not be enough interest or political support from community officials, managers, or groups who have the power. Officials and managers may have general resistance issues, such as fear of losing control, or they fear the bureaucratic military processes may be too slow and difficult. They may have heard about potential barriers in the federal regulatory and contracting processes and not want to pursue partnering with an installation because of that. In other cases, they may just lack knowledge about installation partnership opportunities and benefits. Unless they have compelling reasons to overcome these impediments, they are not likely to pursue partnerships.

Staffing Issues Within the Community

Community officials and personnel also might have staffing issues that can be a barrier to partnering with a military installation. A common barrier is that community leaders, managers, and staff just do not have the time to partner with an installation. Like military installations,

many state and local governments have experienced budget cuts and their personnel are fully committed with existing duties and responsibilities, so they do not have the resources to pursue additional initiatives. They are already spread thin and do not have time to invest in developing an installation PuP. In some cases, local government personnel may not have the knowledge, experience, or skills to develop installation partnerships. They also may lack knowledge about federal terms and procedures, which can also be a barrier to developing a partnership.

Communication Roadblocks with Military Installations

Communities sometimes face challenges in identifying parties at an installation to discuss partnership initiatives with. And once a partnership effort is started, similar difficulties can arise in identifying key installation participants. First, some communities want to collaborate more with installations but run into challenges finding the right military or civilian personnel (who have both the technical and organizational knowledge and the decisionmaking authority) to work with at an installation. The same difficulty can be faced by state and local governments that have created defense alliances, military support offices, or other local, regional, or state organizations to help local military installations and military personnel and their families. For instance, we talked with several different state defense alliance representatives who were frustrated because they could not find the right person to approach about starting a partnering process at one of their state's installations. The fact that military commanders and other military personnel turn over every two to three years contributes to this challenge. Sometimes an individual or representative from such a military support group just does not know how to start the process of identifying someone at the installation with whom to partner.

Second, there can be communication challenges once the partnership process has begun. For instance, installation personnel may not get back to the community partners in a timely fashion, or installation personnel change and the community partners have to develop new relationships and educate the new personnel about what the partnership is doing. And, as stated earlier, the community partner may have challenges in communicating with installation personnel because of military terminology and acronyms. Many community partners are confused by military and federal government terms and concepts, like the Federal Acquisition Regulation (FAR) and Office of Management and Budget (OMB) Circular A-76. They often do not understand what these things are and how they can affect partnering efforts.

Frustration with Slow Military Decisionmaking and Approval Processes Relative to the Community's Processes

Installation PuPs take time to develop and implement, with increasing costs as ambitions and complexity increase (as discussed in Chapter Six). After the passage of National Defense Authorization Act (NDAA) 2013 Sec. 331, there was a lot of enthusiasm about the potential opportunities from partnerships. Some military leaders and experts wanted to move forward quickly and spoke about all the benefits from partnerships without acknowledging some of the challenges, especially the amount of time needed to develop most installation PuPs, given federal processes, requirements, and procedures. Some unrealistic expectations were inadvertently created by military senior leader enthusiasm. This push helped spur innovation and the pursuit of partnerships at many installations. However, lack of a realistic time line can lead to a loss of community enthusiasm. Often, partnering with an installation is a slow process by community standards. We spoke with several community representatives who were frustrated with the military's slow process for developing and approving partnership agreements. Maintaining

realistic expectations, especially about time lines, is important. If community partners become too frustrated, it may lead to unwillingness to commit, thus limiting installations' abilities to partner. For example, the community may not be able to maintain or grow a partnership over time.

Constraints on Community Capacity and Expertise

Another barrier to creating installation partnerships can arise when communities have constraints on their levels of capacity and expertise. Some local governments that are near installations are smaller, especially in rural areas, and they may not have enough capacity or capability in a given service area that the installation wants or needs. At such times, the community lacks the capacity or expertise to provide the needed installation service. In such circumstances, the community cannot provide the needed service more efficiently and effectively, nor can it provide the service at a cheaper cost. In such cases, the community and installation may need to agree that a PuP will not be economically viable. We should note that in some cases, however, there may be options to grow the capacity in the community organization or to partner with multiple local jurisdictions to increase capacity and economy-of-scale benefits.

Installation Challenges in Developing and Implementing PuPs

Installations face a range of challenges in trying to develop and implement PuPs with communities. Next, we discuss some of the main ones identified in our literature review and interviews. For discussion purposes, we have grouped them into six main areas:

1. installations not wanting to partner with the community
2. installation staffing issues
3. installation communication challenges
4. security and access concerns on the installation
5. assessing the partnership in relationship to other activities
6. other factors that can limit the success of partnership opportunities.

Installations Not Wanting to Partner with the Community

Just like communities, some installations do not want to partner with communities for a variety of reasons. First, some installation personnel lack knowledge about PuP partnership opportunities. They often do not know about the many different benefits to be gained from installation PuPs, nor do they know about the diversity of partnership opportunities, as demonstrated in Chapter Three. Installation management and staff also may not know enough about potential community partner capabilities, skills, and capacity. They may think the community does not have much to offer the installation. Second, they may see too many barriers to partnering because of having to deal with the military regulatory, financial, legal, and contracting processes. Because of the perceived barriers and lack of knowledge about the opportunities, some think that pursuing partnerships is not worth the effort. Third, some installation managers do not want to partner with communities because they feel installations need to be independent, self-reliant, and separate from the community. They may fear the risks and uncertainties of relying on a community partner.

Installation Staffing and Personnel Issues

Installations also have personnel and staffing challenges in developing and implementing partnerships. First, there is the fact that some installation personnel are spread too thin because of budget constraints, staff shortages, and too many other tasks. These personnel do not have the time to help create and implement partnerships. In addition, installation personnel may have no capacity to identify and access opportunities. In some cases, installation managers and staff lack knowledge and understanding about PuPs, including the benefits and opportunities. Some installations do not have enough staff with the appropriate technical skills, expertise, and experience. Developing and implementing installation PuPs, especially more-complex ones, involves diverse staff, including financial experts, lawyers, mission commanders, civil engineers/DPW staff, and procurement/contracting staff. For example, a multimillion-dollar Utility Energy Service Contract (UESC) partnership to implement a range of water and energy efficiency technologies is a complex deal that requires sophisticated technical, financial, legal, and contracting skills to develop and implement.

Another staffing issue that is a barrier to PuPs is the turnover in the military commander and other installation staff. Uniform personnel turn over every two to three years; partnerships are long-term relationships that can take a couple years to develop and execute and then last for many more. Therefore, an installation PuP may lose a key military leader or other personnel member who was a champion for the partnership. New staff will not have the same knowledge or level of investment in the partnership, which can hurt it.

Another staffing challenge is that key personnel, such as financial, legal, and contracting staff may say the installation cannot do the partnership, may not want to be involved, or may delay in participating in the process. For example, contracting personnel may think it is not legal to do the partnership because they do not know that sole-source contract for installation services with a local government is legal under certain authorities, such as NDAA 2013 Sec. 331 (and now NDAA 2015 Sec. 351). In fact, the reluctance of legal and contracting staff to participate can delay an installation partnership deal for months or even years, and sometimes has caused the death of them, which has been a major barrier for developing installation UESC partnerships.⁴

Installation Communication Challenges

Installations also face communication barriers in trying to develop and implement PuPs, both externally, in dealing with communities, and internally, within the military system. Installations sometimes face challenges in finding the right local government organization and community personnel to work with. At one large installation, the military tried to get two mayors from nearby cities involved in an installation PuP process, but military leaders found the mayors were too busy with other issues and would not give installation partnering the attention it needed. In this case, the installation personnel realized they might have been more successful if they had tried to work more with city managers or other city staff instead of the mayors.

Another barrier is the lack of appropriate communications across different installation organizations. There can be challenges in communicating across different installation functional stovepipes, such as financial, legal, and contracting. There can also be challenges in communications between military headquarters and installations, such as contracting or legal staff not communicating with headquarters about the partnership issues. Sometimes headquarters

⁴ Lachman, Hall, et al., 2011, p. 47.

staff do not have time and do not know enough about the local circumstances to participate as effectively.

Security and Access Concerns on the Installation

Another barrier to installation partnerships is security and access issues. This issue is a concern when the partner is using or servicing an installation facility or infrastructure. Because of security concerns, some installation personnel may not want to have community personnel working on the installation or community personnel and members using an installation facility. Security personnel may try to limit the partnership or create additional costs and time for the partnership deal. For example, some community personnel may be required to get security clearances before they can work on the installation. Some partnerships involving student interns working in installation libraries were delayed because the students had to acquire Common Access Card (CAC) identification badges. In some cases, installation information technology (IT) staff try to stop or delay the partnership because of network security concerns when the partner needs access to the installation's computer network. Additional security requirements may be imposed on the partners, which can increase the project cost and delay the process.

Partnerships that involve key military assets, such as water, energy, communications, and testing and training infrastructure or facilities, may face additional requirements and challenges in implementation because of the installation security concerns regarding these critical systems. For example, some installations have been reluctant to develop water supply sharing partnerships because of water security concerns.

Security can also be a concern for partnerships that take place in the community. Military and security personnel may not want to use community facilities or infrastructure, even MWR facilities such as a fitness center, because they perceive them as less secure. Some installation personnel may fear that such civilian service locations will become terrorist targets and not have sufficient security.

Assessing the Partnership in Relationship to Other Activities

Another installation barrier to developing PuPs is not fully examining the proposed partnership in relation to other installation activities and functions. Often, installation partnerships have the potential to affect a wide range of stakeholder and installation activities. All these different stakeholders and impacts need to be included in the process or problems can arise.

There are three main issues here. First, some installations may not include all the relevant stakeholders in an installation partnership process, which causes political problems and opposition for some installation PuP efforts. In other cases, it creates bad feelings by the groups that were left out of the process, which could hurt the community support for the partnership efforts in the long run. For example, in a couple of partnerships that we examined, there were problems when the partnership activity had an impact on installation tenants and the tenants' views and needs were not factored into the partnership arrangement. As a result, the tenants had to pay more for an installation service, causing negative feelings about the partnership.

Second, the installation may have not fully assessed a partnership's impact on interrelated activities and organizations. The library discussion in the last chapter is a good example of a service that has complex relationships with other functions on an installation. In a rush to save money on providing library services and wanting to close a building, an installation may overlook many other functional areas or organizations that rely on this service. For an example

of how a library provides other function support, recall the Fort Gordon example discussed in Chapter Six. Besides providing soldier and family MWR library services, Fort Gordon's library also provides services that help out the Training and Doctrine Command training mission, and Child, Youth, and School Services (CYSS) and Army Community Services (ACS) child and youth programs.

Third, as was discussed in the last chapter, some installations may not have fully assessed all the trade-offs in costs and other considerations in providing services compared with the partnership arrangement.

Other Factors That Can Limit the Success of Partnership Opportunities

Other installation factors can also cause barriers to the development of installation partnerships. First, installations face challenges in working with multiple jurisdictions that surround an installation. Often there are sensitive politics between different cities and counties and even competition for or tension about the development of installation partnerships. At one Army post, a smaller city did not like that the Army was planning to partner with a larger city that had better services. Sometimes, some nearby municipalities want to participate while others do not, which can cause challenges if the installation is trying to develop a regional partnership or there is some other reason a specific community needs to be in the partnership. For instance, at one U.S. Air Force (USAF) installation, smaller surrounding towns wanted to partner with the installation, but the larger city did not; the installation wanted the city's participation because of the economy-of-scale benefits and the fact that it could offer some services that the smaller communities could not.

Another challenge in developing installation partnerships has been the Defense Finance and Accounting Services (DFAS) process. DFAS is the federal organization that pays all DoD military and civilian personnel and retirees, as well as major DoD contractors and vendors. Installation partners must abide by DFAS accounting and invoicing requirements, which may require them to modify existing systems to be able to pay the community partner. In some installation partnerships where the installation pays the community for a service, there have been significant delays in processing payments for the municipality. At one installation, it took some time and effort to get the payments to process properly. Such delays in the timing of payments may cause problems for communities that do not have reserve funds to pay personnel until they receive the installation's payments for the service.

Partnership Agreement and Contract Issues

A major challenge in developing installation partnerships is creating the partnership agreement or contract. This document—whether a memorandum of agreement (MOA), memorandum of understanding, or contract—spells out the terms of the installation partnership, including the partnership goals and objectives as well as the roles, responsibilities, and liabilities of each partner.

The first challenge that decisionmakers involved in a partnership development process face is trying to decide which authority or authorities provide the installation and partners with the ability to enter into the partnership arrangement and what type of agreement or contract to use. As discussed earlier, military installations have specific rules and requirements about when they can enter into agreements for services with local governments and other organiza-

tions. Depending on the authority or authorities that allow the military installation to enter into the partnership arrangement, a different type of agreement will be needed or required, such as an MOA or a FAR-compliant contract (which we discuss more below). Installation and community members often lack experience or knowledge about which authorities to use and how to use them, which has been a major barrier to installation partnerships. As stated by some experts with experience in installation partnerships,

There are many legal authorities, regulations and rules that can be used to foster these partnerships, both alone and in combination. Knowledge and skill is required to use these authorities effectively, but perhaps the most difficult obstacles to overcome are the lack of understanding of how such authorities work, and simple cultural inertia that resists change and new ideas.⁵

Once an installation has determined the appropriate authority and agreement type for the partnership, then the installation needs to draft the actual partnership agreement document. This is often when significant challenges and delays affect the partnering process. Many times, all the community and military personnel who have been involved in the partnership discussions are in agreement on the partnership goals, objectives, and tasks until they see specific terms in writing. At that point, disagreements arise with some of the technical experts, such as the lawyers. Many times, the differences relate to how to share risks or costs. Installation and community lawyers, financial experts, contracting officers, and other staff need to accept the specific terms in the agreement or contract and often have different requirements and interpretations on what are acceptable terms. Both partners' staff who need to approve the partnership document, especially the lawyers and contracting staff, often need to go through negotiations about the specific terms and language until everyone agrees to the terms of the agreement, which adds time to the process. Sometimes such negotiations can increase the costs of a deal or even kill it.

Once a partnership has been implemented, there can be problems in the agreement or contract that limit the success of the partnership. In some cases, the agreement or contract is not well-written and the partnership is not achieving its goal, or the community or installation partner is not experiencing the expected benefits from the partnership. In other cases, the partnership is not operating successfully because there were changes in the circumstances over time and the agreement or contract doesn't have the flexibility to change accordingly. Also, people do not always evaluate the ongoing progress and success of a partnership, either formally or informally, or whether the terms of the agreement still seem appropriate. In addition, some partnerships that are predicted to save an installation money do not save as much as originally estimated. In some cases, the installation may even lose money.

However, long-running successful installation partnerships adapt the agreement or contract over time to fix things when they are not going well or because things have changed over time. A good partner relationship helps to overcome contract weaknesses and issues that arise because of changes over time, which was a key factor for the success of the partnership experiences of both the Presidio of Monterey and City of Monterey in California and the Naval Station Great Lakes and Goodwill Industries in Illinois (see the appendix of this report and Box

⁵ Fred Meurer, et al., "Installations-Community Partnerships: A New Paradigm for Collaborating in the 21st Century," *Journal of Defense Communities*, Vol. 1, 2012.

2.3, respectively). For example, both of these partnerships adjusted operations to be responsive to installation budget cuts during the federal government's 2013 sequestration cuts. The partners provide some flexibility in what they do to meet the other partners' needs, even if these actions are not spelled out in the contracts.

Another challenge with an installation PuP agreement or contract is that installations sometimes lack the ability to monitor performance and provide appropriate contract oversight, which can limit the PuP's success. This has been a challenge with some ESPCs and UESCs for implementing energy-efficiency technologies, especially as installation energy staff left and new staff came on board that were not familiar with the terms of the agreement.

Challenges from Federal Policies, Legislation, and Regulations

Installations also face some challenges in federal policies, regulations, and legislation when trying to develop and implement partnerships. Federal law determines into which formal relationships federal agencies may enter, and how these formal agreements or contracts must be structured. Executive Branch policies, circulars, and memoranda provide additional guidance on how these laws must be implemented, such as when use of commercial providers is appropriate, pricing procedures, budgeting requirements, business case analyses methods, and so forth. As a result, DoD must adhere to various laws, executive orders, procurement regulations, guidelines, and policy directives when engaging in formal partnership activities. Potential partners need to understand that any relationship with a military installation will be subject to these laws and regulations (unless specific legislation provides an exemption).

Some of these laws and regulations have been especially challenging to efforts at developing and implementing installation partnerships. We briefly summarize some of the main policies and documents that have posed challenges for installation partnerships:

- Federal Acquisition Regulation (FAR)⁶
- Office of Management and Budget (OMB) Circular A-76⁷
- OMB Circular A-11⁸
- small and disadvantaged businesses set-asides
- AbilityOne contracts.

Obviously, these are not the only federal policies, regulations, and legislation that apply to installation partnerships—the applicable laws and policies depend on what the partnership is trying to do and how it is trying to do it.

The following section was not meant to encompass all the federal requirements that may apply to partnerships, but rather to highlight the primary ones that have been discussed when trying to develop installation partnerships with state and local governments, especially in applying NDAA 2013 Sec. 331 (and now NDAA 2015 Sec. 351). It is also important to note that there can also be some challenges in state and local policies, regulations, and legislation that are not discussed here.

⁶ General Services Administration, last updated 2016.

⁷ OMB, *Performance of Commercial Activities*, Circular No. A-76, 2003a.

⁸ OMB, *Preparation, Submission, and Execution of the Budget*, Circular No. A-11, June 2015.

Federal Acquisition Regulation

The FAR is a set of federal government regulations for the procurement of goods and services.⁹ Established in 1984, it standardized procurement policies and rules across the federal government and codifies uniform policies and procedures for all executive agencies' procurement of goods and services. The FAR is codified in Title 48 of the Code of Federal Regulations and comprises eight subchapters that contain 53 parts. The subchapters address everything from acquisition planning to contract management, as follows:

- Subchapter A – General
- Subchapter B – Acquisition Planning
- Subchapter C – Contract Methods and Contract Types
- Subchapter D – Socioeconomic Programs
- Subchapter E – General Contracting Requirements
- Subchapter F – Special Category of Contracts
- Subchapter G – Contract Management
- Subchapter H – Clauses and Forms.

Many parts and subparts of the FAR can potentially affect installation partnering, depending on the nature of the partnership and whether an authority other than Sec. 351 is being used:

- **FAR Subpart 31.6—Contracts with State, Local, and Federally Recognized Indian Tribal Governments.** This subpart provides the guidelines for determining which costs are allowable when contracting with state, local, and federally recognized Indian tribal governments. It also identifies those costs that are specifically not allowable by law (such as entertainment, marketing, fines and penalties, excessive travel expenses, etc.). Subpart 31.602 of the FAR specifically refers to OMB Circular A-87 for determining the allowable costs of contracts and subcontracts.
- **FAR Subpart 31.7—Contracts with Nonprofit Organizations.** This subpart parallels the previous Subpart 31.6 and addresses the cost principles for contracts, grants, and other agreements with nonprofit organizations. It refers to OMB Circular A-122 for specific guidance.
- **FAR Part 37—Service Contracting.** This part of the FAR provides policy and detailed procedures to be used when procuring services by an outside contractor and applies regardless of the type of service or form of contract. Services acquisitions are required to utilize performance-based contracts to the extent practicable (policies and procedures for performance-based contracts are addressed in Subpart 37.6).¹⁰ Additional FAR subparts apply to specific types of services and take precedence should there be an inconsistency. For example, additional guidance for research and development services is in Part 35;

⁹ General Services Administration, 2016.

¹⁰ *Performance-based contracting* is a contracting method that focuses on outputs, quality, or outcomes (results, as opposed to how work is performed). Contractor payment and contract renewals are then based on the degree to which the contractor achieves the specific, measurable performance standards (such as output quantity, timeliness, quality) and requirements identified in the contract. Incentives for improving performance about requirements may also be present. (Chartered Institute of Procurement & Supply and Institute for Public Procurement, “Principles and Practices of Public Procurement: Performance Based Contracting,” 2013; General Services Administration, last updated 2016, Subpart 37.601.

architect-engineering services is in Part 36; information technology is in Part 39; and transportation services is in Part 47. The FAR provides detailed guidance regarding how service contracting is to be performed, such as how performance-based contracts should be structured and a reliance on the private sector for commercial services (as in OMB Circular A-76 Subpart 7.3), among others.

The FAR is a complex set of requirements, as this simplified summary description of a few subparts illustrates. The FAR is relevant to installation PuPs because, depending on which authority is used for the PuP, military installations may have to follow FAR procedures when total purchases are at or above \$150,000 in one year or \$30,000 per year over five years. Understanding and applying the FAR requires a high level of expertise. Often, understanding and applying the FAR requires expertise that partners do not typically have—and for smaller contracts, it may add complexity (and length) to contracts and the contracting process. This sentiment was mirrored in a Defense Science Board report:

A number of analysts argue that the complexity of the acquisition system dissuades a number of companies from competing for government contracts. Small and midsize businesses, which often do not have the resources to hire in-house counsel or experts in government contracting, may find government contracting too difficult to navigate. Not only is the defense acquisition process complex, defense acquisition rules are constantly changing, making it challenging for companies to keep up with changes that can impact their business.... The acquisition of services receives far less attention than that of materiel, yet it is a growing part of the defense budget (noting that in 2010 it was 57 percent of the DoD's acquisition budget).¹¹

Further complicating FAR application to installation PuPs is the fact that there are additional requirements overlaying the FAR. These are contained in the Defense Federal Acquisition Regulation (DFAR), which supplements the FAR for DoD circumstances.

The result is that many community partners do not have the expertise or resources to develop a FAR-compliant agreement without assistance. FAR requirements have added time and cost to contracts for some partnership activities, for example, when communities had to hire consultants to help navigate the process. In other cases, installations and their partners have chosen to pursue an alternative approach to partnering so the FAR no longer applies, such as exchanging services or pooling funds instead of having the military installation acquire and pay for services from the community partner. In the 2015 NDAA, Congress made intergovernmental support agreement (IGSAs) a legal instrument unto themselves and included them under the real property actions within the U.S. Code, eliminating the need to use the FAR for contracting regarding IGSAs. However, DoD can choose to apply the FAR as a matter of policy, and there are still some other types of partnership agreements where the FAR may apply.

OMB Circular A-76

The OMB provides presidential-level guidance and coordination among federal agencies for preparation and execution of the federal budget, as well as policymaking and managing the

¹¹ House Armed Services Committee, “Challenges to Doing Business with the Department of Defense: Findings of the Panel on Business Challenges in the Defense Industry,” March 19, 2012.

federal agencies in the areas of procurement, financial management, e-government, performance and personnel management, and information and regulatory policies.¹² Since partnering opportunities involve the budgeting and functioning of a federal agency, several OMB circulars will be relevant to how federal agencies both assess and manage these opportunities. OMB Circular Number A-76, "Performance of Commercial Activities," provides the specific rules and procedures to follow when considering outsourcing functions that are performed by federal government personnel.¹³ It is relevant because partnerships that migrate work performed by federal employees to what are considered commercial activities (municipalities are considered commercial for the purposes of A-76 analyses) must use this process to assess the economic appropriateness. That is, OMB Circular A-76 could apply to an installation partnership when the proposed PuP implies the potential loss of federal government jobs.

OMB Circular A-76 contains the rules and procedures to follow when privatizing or outsourcing functions performed by government personnel, including the method for comparing costs and other factors between government in-house providers and private providers:

Public-private competitions conducted under OMB Circular A-76 are the only statutorily allowable process by which to convert work performed (or designated for performance) by government civilian employees to private sector performance.¹⁴

The process is as follows: When a function is selected for A-76 competition, a Performance Work Statement (PWS) is developed that describes the specific functions and services provided, forming the basis for the cost analyses. The same PWS is used by both the government personnel and interested commercial entities to develop their bids. The in-house bid, referred to as the Most Efficient Organization (MEO), is compared against the private bid. A private entity must offer cost savings of 10 percent or more over the MEO to win the competition (the reasoning being that the internal disruption bears a cost that is not justified by marginal cost savings).¹⁵ Under the revised A-76 rules, any function provided by government personnel must go through an analysis regardless of the number of personnel (under the old rules, ten or fewer positions could be converted without an analysis).

Historically, MEOs have won roughly half of A-76 competitions, and evidence from OMB reports suggest these competitions result in cost savings ranging from 10 percent to 40 percent, regardless of which organization wins.¹⁶ The number of A-76 competitions performed varies annually as administrations differ in the emphasis placed on outsourcing activities.

Updated in 2002, A-76 acknowledges partnerships but does not address how to consider public-private and public-public partnerships within the competitive sourcing process.¹⁷ The

¹² OMB, "The Mission and Structure of Office of Management and Budget," undated.

¹³ OMB, 2003a.

¹⁴ Jo Ann Rooney and Thomas Hessel, "Executive Summary: Update on OMB Circular A-76 Public-Private Competition Prohibitions," Office of the Undersecretary of Defense for Personnel and Readiness, February 27, 2012.

¹⁵ Edward G. Keating et al., *The Effects of A-76 Cost Comparisons on DoD Civilian Education and Training*, Santa Monica, Calif.: RAND Corporation, DB-442-OSD, 2006.

¹⁶ OMB, "Competitive Sourcing: Conducting Public-Private Competition in a Reasoned and Responsible Manner," July 2003b, p. 2.

¹⁷ Ellen M. Pint, et al., *Public-Private Partnerships: Background Papers for the US-UK Conference on Military Installation Assets, Operations and Services*, Santa Monica, Calif.: RAND Corporation, MR-130-A, 2001.

Obama administration has extended a moratorium on A-76 analyses by the DoD, which were originally established by Congress in the NDAA of 2008. The A-76 process also can be time-consuming. The length of time to perform the analyses can range from 90 days for a streamlined process to two years or more for those involving 65 full-time equivalent employees or more. Issues regarding the length of time to perform the analyses, which functions are inherently governmental and should remain in-house,¹⁸ monitoring and assessing cost savings, and specific cost analyses procedures that may favor government personnel or incumbent contractor personnel continue to be debated.¹⁹

OMB Circular A-76 could apply to an installation partnership when the proposed installation PuP means the loss of federal government jobs. The NDAA 2013 Sec. 331 (and its successor NDAA 2015 Sec. 351) clearly states that “intergovernmental support agreements authorized by this section are not used to circumvent the requirements of Office of Management and Budget Circular A-76 regarding public-private competitions.”²⁰ Therefore, when considering activities performed by government personnel within a municipal partnership, an A-76 analysis as just described must be performed. In this context, a state or local government is viewed as a private contractor. However, the OMB had indicated in the revised circular and accompanying discussion that innovative sourcing approaches need additional flexibility. Therefore, the scope of the circular allows for analysis or process deviations with OMB’s prior written approval for novel approaches, such as public-private partnerships, public-public partnerships, and high-performing organizations.²¹ Since the moratorium on A-76 analyses remains in place subsequent to the passage of NDAA 331, there is no indication how A-76 analyses may be performed for these types of partnerships, or if any deviations or modifications to the process will be allowed. Moreover, given the length of time since A-76 analyses have been performed, DoD will likely have to reconstitute the expertise necessary to perform them.

The moratorium on these analyses means that functions performed by federal personnel are off-limits for intergovernmental agreements as a matter of policy. When the moratorium is ultimately lifted, any future analyses will likely require an investment of staff to establish a process suitable for partnerships, in addition to reestablishing the expertise for these analyses. A-76 analyses will require staff time and expertise for a potential partner, which may be beyond a partner’s capability. Moreover, a potential partner might not have access to government data but must nonetheless be competitive within the specific analyses guidelines to gain work. In

¹⁸ OMB, Circular No. A-76 (revised), *Performance of Commercial Activities*, May 29, 2003. It is important to note that related to OMB Circular A-76 is the Federal Activities Inventory Reform Act (FAIR) of 1998, which creates statutory reporting requirements for federal executive agencies, one of which is to identify those functions that are “inherently governmental” and should not be outsourced. “The FAIR Act defines an activity as inherently governmental when it is “so intimately related to the public interest as to mandate performance by Federal employees” while a 2011 Office of Federal Procurement Policy Letter reaffirms the definition of *inherently governmental*, as well as those functions that are closely related, and provides guidance on how these categories should be managed. (Project On Government Oversight, “Bad Business: Billions of Taxpayer Dollars Wasted on Hiring Contractors,” September 13, 2011; Scott Amey, “Feds vs. Contractors: Federal Employees Often Save Money, But an Advisory Panel Is Needed to Create a Cost Comparison Model,” Project on Government Oversight, April 2013.) For more information, see Office of Federal Procurement Policy, “Performance of Inherently Governmental and Critical Functions,” Policy Letter 11-01, September 12, 2011.

¹⁹ Valerie Bailey Grasso, *Defense Outsourcing: The OMB Circular A-76 Policy*, Congressional Research Service, updated June 30, 2005; Valerie Bailey Grasso, *Circular A-76 and the Moratorium on DoD Competitions: Background and Issues for Congress*, Congressional Research Service, January 16, 2013; OMB, 2003a, pp. 32,134–132,142.

²⁰ 10 U.S.C. Sec. 2336(d).

²¹ Federal Register, Volume 68, Number 103, May 29, 2003, pp. 32134–32142; OMB, 2003a.

any event, these analyses will take time to perform and will extend the schedule required if a municipality (or other partner) wishes to provide services to the DoD that are provided by federal personnel.

To summarize the implications of OMB Circular A-76 for installation partnerships, it could apply to an installation partnership when the proposed PuP means the loss of federal government jobs. However, it is unclear how it affects authorized but unfilled billets. In addition, it could limit the ability to develop an installation PuP, given the current moratorium. Lastly, the required analysis for OMB Circular A-76 takes time and resources, which could be a challenge for many communities.

OMB Circular A-11

OMB Circular Number A-11, “Preparation, Submission, and Execution of the Budget,” covers the development and submission of the federal budget, including how federal spending obligations are assessed against appropriated amounts.²² It can apply to some installation partnerships because it provides the rules for determining the budgetary treatment of federal purchases and leases, such as capital leases and operating leases. Appendix B of Circular A-11 contains the specific rules for determining the budgetary treatment, or scoring, of federal lease-purchases and leases, such as enhanced-use leases (EULs) and lease-backs, which are of special interest to partnerships. Since leases involve assets and their associated financial risk over a period of years, there are specific guidelines for treating the budgetary consequences of these agreements.

The House and Senate Budget Committees, the Congressional Budget Office, and the Office of Management and Budget are referred to as the “scorekeepers” when measuring compliance with budget requirements established under several laws.²³ The purpose of the guidelines in A-11 is to ensure that the scorekeepers measure the effects of legislation on the deficit consistent with established scorekeeping conventions to meet the specific requirements in those acts. How well a project “scores” can determine its viability.²⁴

The budget requirements for leases, detailed in Appendix B of Circular A-11, are of special interest to partnerships because they determine how a federal agency must structure the arrangement. Distinctions are made among lease-purchases, capital leases, and operating leases, each with their own budgetary consequences. Circular A-11 provides criteria for determining this distinction. For example, an operating lease is one where ownership (and risk) remains with the lessor and where the lease does not contain a purchase option, does not extend beyond 75 percent of the economic lifetime of the asset, and does not exceed 90 percent of the fair market value over the life of the lease. There also cannot be an operating lease for an asset that is built for the special purpose of the government or does not have a private-sector market.

The circular also requires federal agencies to submit proposals during the conceptual stage for nonroutine financing or leasing proposals for a review of the scoring impact. A few of the

²² OMB, 2015.

²³ These acts are the: Congressional Budget Act of 1974, the Balanced Budget and Emergency Deficit Control Act of 1985, and the Statutory Pay-As-You-Go Act of 2010. (Public Law 93-344, Congressional Budget Act of 1974, 1974; Public Law 99-177, Balanced Budget and Emergency Deficit Control Act of 1985, 1985; Public Law 111-139, Statutory Pay-As-You-Go Act of 2010, 2010)

²⁴ Budget scoring is the process of estimating the budgetary effects of pending and enacted legislation and comparing them with limits set in the budget resolution or legislation. Effects are generally measured in terms of budget authority, receipts, and outlays. (Tax Policy Center, “Federal Budget Terms,” 2010.)

approaches listed in the circular include outlease-leaseback mechanisms, public-private partnerships or limited liability corporations, EULs with annual payments above certain thresholds, and projects constructed or located on government land, among others. Some partnerships are exempt from A-11, such as ESPCs, which are scored on an annual basis.

It has been suggested that budget scoring adds unnecessary uncertainty to partnering opportunities because guidelines for the use of the data are subjective,²⁵ and because there are potential issues surrounding the determination of fair market value and inconsistencies between the A-11 rules and commercial accounting standards. Some installations have faced challenges in developing community partnerships because the fair market value requirement prices the property too high for a municipality's public use.

For example, A-11 scoring can affect an EUL project in two ways. First, if the project involves a land-lease, there is no budget scoring performed as long as the lease is based on fair market value (which can be received as a cash payment or in-kind consideration). Second, if there is federal leasing of space in new buildings constructed with the EUL project, the A-11 criteria are used to determine whether the project should be considered a capital lease or an operating lease, which have different budgetary requirements.²⁶ Others have suggested that A-11 has made those leases that result in government ownership unaffordable because they are treated as a capital lease. Over time, A-11 has been applied to public-private partnerships, precluding their use to finance federal acquisition of capital assets.²⁷

To summarize the implications of OMB Circular A-11 for installation partnerships, it provides the rules for determining the budgetary treatment of federal purchases and leases, such as capital leases and operating leases. It could apply to an installation partnership that involves such purchases and leases. When A-11 applies, it adds uncertainty to the project depending on the budget climate and the determination of whether the project is an operating lease or a capital lease. In addition, the determination of fair market value can add challenges to a community partnering project. A-11 has also been a challenge for some installation PuPs because of the differences in accounting practices among partners.

Small and Disadvantaged Businesses Set-Asides

To promote and support societal goals, certain classes of businesses receive targeted support from the federal government in a variety of forms. Several laws, executive orders, and regulations pertain to small and disadvantaged businesses, the most notable of which is the Small Business Act, which created the Small Business Administration (SBA) to assist small businesses directly and to work with federal agencies toward attaining certain goals.²⁸ In addition, the federal government establishes goals for small-business participation in federal procurement, referred to as the goaling program, and operates Federal Offices of Small and Disadvantaged Business Utilization. These goals and requirements mean that certain federal contracts and

²⁵ Meurer et al., 2012.

²⁶ U.S. Army, "Enhanced Use Leasing," undated-b; OMB, 2015, Appendix B.

²⁷ Dorothy Robyn, *Reforming Federal Property Procurement: The Case for Sensible Scoring*, Brookings Institution, April 24, 2014.

²⁸ The Small Business Administration oversees several programs that provide financial and technical support to small businesses. These are loan guaranty and venture capital programs (enhancing access to capital); contracting programs (improving access to federal contracts); direct loan programs (assisting recovery from natural disasters); and small-business management and technical assistance training programs (aiding management).

subcontracts must include a certain number of small and disadvantaged businesses. That is, contracts that meet certain criteria are “set aside,” or reserved, for small and disadvantaged businesses.

The SBA establishes *thresholds*, or size limits, for small businesses (such as gross revenue for service companies or number of employees for manufacturing) using the North American Industry Classification System to determine if a firm qualifies as a small business. Small-business contracting programs that seek to improve small businesses’ access to federal contracts are geared toward (1) small businesses that contract directly with the federal government (prime contracting set-aside programs), and (2) larger firms that may subcontract a portion of work to a small business (subcontracting programs). Both the prime contracting and the subcontracting set-aside programs target small business generally, as well as specific subclassifications of small businesses. These subclassifications include:

- small disadvantaged business, including those certified within the 8(a) Minority Small Business and Capital Ownership Development Program²⁹
- the Historically Underutilized Business Zones (HUBZones) program
- the Service-Disabled Veteran–Owned Small Business Program
- the Women-Owned Small Business (WOSB) Federal Contract program.

Each of these business classifications are eligible for slightly different services provided by the federal government, and the qualifications and necessary certifications will vary for each, as well.

Assuming a fair market price is offered, contracts between \$3,000 and \$100,000 are automatically “set aside,” or reserved, for small businesses. Should the contracting officer determine there is not a “reasonable expectation of obtaining offers from two or more responsible small business concerns that are competitive in terms of market prices, quality, and delivery,” the officer has the discretion to proceed with an unrestricted competition but must document why this determination was made.³⁰ Each agency may also establish their own thresholds for reviewing programs valued at more than \$100,000 that may be suitable for small-business set-asides. Contracts may be set aside at the discretion of the agency’s contracting officer with input from agency small-business experts and sometimes with consultation with the SBA.

In addition to setting aside smaller procurements, larger procurements are encouraged to incorporate small-business participation within their subcontracting activities. According to the FAR, for those contracts that are perhaps suitable for larger firms, contracting officers are to evaluate bids in part on the plans and efforts the bidder has taken to award a portion of the subcontract dollars to small businesses.

One particularly pertinent aspect of the Small Business Act concerns Sec. 8(a), which outlines the SBA’s Minority Small Business and Capital Ownership Development Program. These are firms led by both socially and economically disadvantaged persons who have gone

²⁹ Individuals controlling the firm must be both socially and economically disadvantaged. For purposes of the 8(a) Business Development program, the following are considered disadvantaged: Black Americans, Hispanic Americans, Native Americans, Asian Pacific Americans, and Subcontinent Asian American. A business may self-certify as small, socially and economically disadvantaged to participate in some programs, but government certification must be obtained in order to be eligible for all services as part of the 8(a) program (SBA, “Government Contracts Overview, undated-a; SBA, “Social Disadvantage Eligibility,” undated-d).

³⁰ General Services Administration, 2016, 19.502-2.

through the SBA certification process.³¹ In these cases, the SBA is required to offer nonfinancial assistance to firms in addition to providing set-asides for them. And while SBA typically relies on other federal agencies to contract with these firms, “Sec. 8(a) gives SBA arguably unique authority over contracting with 8(a) firms, such that other agencies generally cannot remove a requirement previously procured through the 8(a) Program from the program without SBA’s consent.”³²

In addition to requiring agencies to set aside complete or partial contracts for small businesses, Congress has also directed federal agencies to establish annual governmentwide and agency-specific goals for small and other disadvantaged business’ participation in federal contracts. Each federal agency establishes its own annual goals for small and disadvantaged businesses based on the particular mix of goods and services they procure. The governmentwide goal is for small-business participation in federal procurement in 23 percent of the value of eligible federal contracts.³³ Within the overall small-business category are the following subcategories:

- small disadvantaged businesses, a 5-percent governmentwide goal³⁴
- women-owned small businesses, a 5-percent governmentwide goal
- historically underutilized business zones, a 3-percent governmentwide goal
- service-disabled veteran-owned small businesses, a 3-percent governmentwide goal.³⁵

DoD sets the same small-businesses category goals and slightly different overall small-business goals (Table 7.1). Besides the goals, Table 7.1 also shows fiscal year (FY) 2012 DoD achievement for prime contract awards and subcontract awards by the different categories of small businesses.

A contract may be counted toward each disadvantaged business classification for which the individual business’ characteristics (including subcontractors) meet the requirements. Each agency’s performance is reported to Congress by the SBA on an annual basis. And while there is no enforceable consequence for failing to meet these established goals, agencies receive a lot of negative visibility if they are not attained.

The issue with small and disadvantaged business programs occurs when municipalities are interested in performing work that is performed by small disadvantaged businesses. Since much of this work is set aside for small businesses only, there would have to be a justification for opening up the competition. Moreover, if a partnership were to displace a small business, DoD may not attain its goals in support of congressional objectives as effectively. It is possible that municipalities could work with small businesses to serve both purposes.

³¹ Those who self-certify as small and disadvantaged, or those firms within the other business classifications, such as HUB-Zone, women-owned, or disabled veteran-owned, are not considered 8(a) firms.

³² Kate M. Manual and Erika K. Lunder, *Legal Authorities Governing Federal Contracting and Subcontracting with Small Businesses*, Congressional Research Service, March 7, 2012.

³³ The total federal procurement dollar baseline excludes contracts for which small businesses cannot effectively participate. Examples include overseas procurements, those not covered by the FAR, and procurements to directed sources. These contracts make up approximately 20 percent of all federal procurement dollars.

³⁴ A small business may self-certify as socially and economically disadvantaged. However, the business must go through a specific certification process to be identified as an 8(a) firm and become eligible for additional services.

³⁵ These codes and the thresholds can be found at SBA, “Determine Your NAICs Code,” undated-b.

Table 7.1
Small and Other Disadvantaged Business Set-Aside Goals and Achievements for FY 2012 (Percent of Total Contract Dollars)

	2011 Attained	2012 Goal	2012 Attained
Prime contracting			
Small business	19.8	22.5	20.41
Women-owned small business	3.43	5.0	3.38
Small disadvantaged business (a)	6.9	5.0	7.3
Service-disabled veteran-owned small business	2.02	3.0	2.33
HUBZone	2.58	3.0	2.18
Subcontracting			
Small business	35.2	36.7	35.5
Women-owned small business	5.8	5.0	5.7
Small disadvantaged business ^a	4.9	5.0	4.8
Service-disabled veteran-owned small business	2.2	3.0	1.9
HUBZone	2.0	3.0	1.4

SOURCE: DoD, "FY2012 Small Business Procurement Scorecard," June 20, 2013.

^a Includes 8a firms.

A related issue has to do with the contracting personnel and agency small-business experts who are charged with implementing the small-business set-aside program. These personnel must assess how to maximize small-business opportunities while maintaining the agency's ability to obtain the necessary goods or services at fair market value. This is a nontrivial task that requires information, resources, and subjective judgment to a degree. Some have argued that there is emphasis placed on contracting with small businesses based on contract dollars in order to meet the agencywide goals, while ignoring the differences in capabilities among firms during the selection process and raising questions about obtaining true market value.³⁶ According to the FAR, contracting personnel have some latitude in determining whether a specific procurement is suitable for a full or partial set-aside. However, because of the pressures to meet agencywide goals, lack of good market information, limited resources, etc., this analysis is not always performed.³⁷

With passage of the NDAA 2015, Sec. 351 gave DoD broader authority in pursuing intergovernmental support agreements, allowing it to proceed without necessarily consulting the SBA.³⁸ To summarize, small and disadvantaged businesses have an advantage in gaining work

³⁶ Philip G. Bail, Jr., "The Demise of the Federal Government Small Business Program," *Defense Acquisition Research Journal*, Vol. 17, No. 1, Issue 53, January 2010.

³⁷ Bail, 2010.

³⁸ Under 331 it was unclear if the contracts that were specifically with firms classified as 8(a) would have to be reviewed by the SBA Business Development Program and expressly released for competition. The debate centered on whether NDAA 2013, Sec. 331 language provides for an exemption to the small-business requirement since it allows such intermunicipal agreements when they are in the "best interests of the department by enhancing mission effectiveness or creating efficiencies or economies of scale, including by reducing costs" (U.S. Code, Title 10, Armed Forces, Subtitle A, General Military Law, Part IV, Service, Supply, and Procurement, Chapter 159, Real Property; Related Personal Property, and Lease of Non-Excess Property, Sec. 2679, Installation-Support Services: Intergovernmental Support Agreements). However, in a 2013 memo, the SBA counsel determined that the specific NDAA 2013 Sec. 331 language: "Notwithstanding any other provision of law, an intergovernmental support agreement . . ." requires such agreements to continue to follow federal code, and submit to review by the SBA Business Development Program (John Klein, "Effects of the National Defense Authorization Act of 2013 on the Release of Requirements from the 8(a) BD Program," Small Business Administration, April 17, 2013).

that meets the criteria for small-business set-asides unless they cannot provide these goods or services at fair market value or there is insufficient competition. NDAA 2015 Sec. 351 provides DoD some latitude to pursue IGSA contracts, which no longer must be reviewed by the SBA before they are released, in addition to the fact that contracting personnel have always had some flexibility in deciding when these small and disadvantaged business set-asides apply. As a result, installations may still be able to partner with municipalities even when a qualified small business is available to provide the service.

AbilityOne Contracts

AbilityOne is a legislatively established program that supports employment of blind and severely disabled individuals by giving them priority in some federal contracts. Formerly called the National Industries for the Blind/National Industries for the Severely Handicapped (NIB/NISH), AbilityOne is a noncompetitive program that supports this effort by giving priority to contracts with qualified nonprofits. It is also the single largest employer of blind and disabled individuals. The origins of the program date to 1938 with the passage of the Wagner-O'Day Act, which provided opportunities for the blind to manufacture products for sale to the federal government. Amended in 1971, the Javits-Wagner-O'Day Act extended the program to include those individuals with other severe disabilities and the provision of services in addition to products. The AbilityOne program is run by an independent federal agency, the Committee for Purchase from People Who Are Blind or Severely Disabled. This committee oversees two central nonprofit agencies (the National Industries for the Blind and NISH), manages the procurement list, and establishes prices. These central nonprofit agencies work with nearly 600 independent nonprofit providers to supply goods and services to federal agencies under the program. Fees collected on contracts with federal agencies go toward maintaining the program office.

The federal procurement process (as implemented in FAR Subpart 8.7) gives priority to contracts with nonprofit qualified providers that are identified by NIB/NISH umbrella organizations. Should a federal agency require a service or product that appears on the formal procurement list of products and service and that can be supplied locally by a qualified provider, then the AbilityOne program providers must be considered for federal contracts within a legally established priority order. These contracts are not competed.

Services and products that have been provided through AbilityOne contracts are shown in Table 7.2. As of 2012, the AbilityOne program provided more services (approximately 65 percent of the projects) than goods (approximately 35 percent of the projects) to the federal government.³⁹ Tinker AFB in Oklahoma, for example, has several contracts with NIB/NISH qualified nonprofits for vehicle operations, grounds maintenance, custodial services, food services, warehouse services, and base service and support services. Similarly, Naval Station Great Lakes in Illinois has an AbilityOne contract with Goodwill Industries. However, this contract differs from many AbilityOne contracts because it functions as a partnership (see Box 2.3).

As Table 7.2 indicates, there are many services that AbilityOne program participants provide that municipal partners also could provide. Sec. 2679 has given DoD broader authority in intergovernmental agreements, although its applicability to AbilityOne contracts remains

Sec. 2679 has altered this debate (Public Law 112-239, National Defense Authorization Act for Fiscal Year 2013, Subtitle D, Readiness, Sec. 331, Intergovernmental Support Agreements with State and Local Governments, January 2, 2013).

³⁹ U.S. General Accounting Office, 2013.

Table 7.2
AbilityOne Products and Services

Service Categories	Product Categories
<ul style="list-style-type: none"> • Administrative • Contact centers • Contract Management Support (CMS) services • Custodial • Document management • Environmental • Fleet management • Food services • Grounds maintenance • Health care • Laundry • Secure document destruction • Secure mail/digital document • Supply chain management and warehouse • Total facilities management 	<ul style="list-style-type: none"> • Aircraft, vehicular and electrical equipment and supplies • Clothing, textiles and individual equipment • Food processing, packaging and distribution • Office supplies and furnishings

untested at this time. In addition, not all installations have qualified AbilityOne providers in their region, so this is not an issue at some locations.

Other Federal Requirements

Other federal requirements can pose challenges as well. Two examples that illustrate the challenges in understanding the federal requirements and when they apply are OMB Circular Number A-87 and the McNamara-O’Hara Service Contract Act of 1965.⁴⁰

First, OMB Circular Number A-87 provides the principles for establishing allowable costs incurred by state and local governments under grants, cost-reimbursement contracts, and other agreements with the federal government. While this circular does not prescribe how local governments must perform the work, it does provide direction on what costs are allowed to be charged to the federal government and how central (or overhead) activities and indirect costs must be allocated among programs. Partnerships that involve federal payments must abide by these rules.

Second, the McNamara-O’Hara Service Contract Act of 1965 establishes minimum pay requirements for service employees on federal contracts. This act requires general contractors and subcontractors performing services on prime contracts in excess of \$2,500 to pay the prevailing wage in the locality, as determined by the U.S. Department of Labor, or the rates contained in a collective bargaining agreement. Certain contract services are exempt.⁴¹

⁴⁰ OMB, *Cost Principles for State, Local, and Indian Tribal Governments*, Circular No. A-87, May 10, 2004; McNamara-O’Hara Service Contract Act of 1965: U.S. Code, Title 41, Public Contracts, Chapter 6, Service Contract Labor Standards, Sections 351–358, 1965.

⁴¹ Similarly, the Davis-Bacon and related acts establish minimum pay requirements for contractors. The act applies to contractors and subcontractors performing on federally funded (or assisted) contracts in excess of \$2,000 for the construction, alteration, or repair (including painting and decorating) of public buildings or public works. Laborers’ pay must be equal to or greater than the locally prevailing wages (including fringe benefits) for comparable work in the area—the Department of Labor determines the locally prevailing wage rates. Such requirements may or may not apply to an installation partnership activity.

Recommendations and Conclusions

In this chapter, we present the recommendations and conclusions from this study. In examining the literature and our interviews with community, installation, and partnership facilitators involved in developing and implementing installation partnerships, we developed some recommendations for helping to create and implement more installation public-to-public partnership (PuPs). We discuss those first, then briefly present some conclusions.

Recommendations

For discussion purposes, the recommendations have been grouped into four categories:

- recommendations for installation actions for developing and implementing partnerships
- education and technical assistance recommendations for the Services and Office of the Secretary of Defense (OSD)
- addressing federal policy, legislation, and regulatory challenges
- strategic recommendations for the Department of Defense (DoD).

Each of these categories is discussed below.

Recommendations for Installation Actions for Developing and Implementing Partnerships

In Chapter Two, we discussed the success factors that tend to be common for all types of partnerships, including from the business literature (see Table 2.3 and related discussion). These are key things that installations should strive to do to develop and implement installation partnerships. Based on these factors, we developed some standard recommendations for installation partnerships. Specifically, installations and community partners should:

- identify synergistic goals and objectives
- invest in the partnership and establishing a long-term relationship
- have committed leaders and staff
- make sure there are routine and ongoing communications
- ensure that clear responsibilities are assigned to the different partners.

These are standard recommendations for developing and implementing partnerships; see Chapter Two for more details and other important factors. Since these types of general recommendations are common to most partnerships, documented in the literature, and discussed in Chapter Two, we do not explain them further here. These specific recommendations were

chosen because they are the most relevant for installation partnerships. For instance, the need to have committed leaders tends to be a key issue and challenge for an installation partnership (more so than a private-to-private partnership) given the turnover in installation leadership. Establishing ongoing communications is key, especially to help address the communications barriers discussed in Chapter Seven and so that partners can understand each others' business models and where they may successfully contribute.

We identified some other recommendations to help installation leaders and staff address the specific barriers in developing and implementing installation PuPs. This is not a comprehensive list of recommendations; this report is not a how-to guide for developing and implementing installation partnerships. Rather, these were recommendations identified to help installations prevent or overcome the barriers discussed in Chapter Seven.

The installation recommendations are:

- Develop a well-written partnership agreement or contract.
- Ensure that all partnership participants know that part of this process is to develop a long-term, mutually beneficial relationship.
- Involve all potentially relevant stakeholders in the process.
- Facilitate partnership champions to motivate change.
- Develop a joint process for handling the media regarding the partnership.
- Encourage on-site field trips to help develop the partnership relationship and project ideas.
- Once implemented, routinely monitor and evaluate the partnership progress.

Develop a well-written partnership agreement or contract. This agreement (whether a memorandum of agreement [MOA], memorandum of understanding [MOU], contract, or other type of agreement document) should clearly spell out the goals, objectives and performance criteria, as well as the responsibilities of each partner, including how resources and risks will be shared. For more ambitious partnerships, the document should include key milestones and metrics to help track progress and performance. The agreement should also specify the consequences to partners for failing to uphold their responsibilities. In addition, it should clearly spell out each partner's responsibilities regarding any possible costs and risks. Lastly—especially for installation PuPs that involve larger amounts of resources and risks—installations should build some flexibility into the agreement or contract for possible future changes. There are a number of different ways to do this. We illustrate with some Navy installation experiences. Because of the need for surge capabilities when a fleet comes into port, some Navy installations have good experience with building flexibility into agreements and contracts. For example, one Navy installation manager stated how when they have a surge, the Navy needs flexibility to modify the contract with reasonable costs, including sole-source contracts. For example, the need for meals per day may be for 60 for two months, then 110 for three months. At this installation, the service agreement or contract must have the flexibility to accommodate such differences without penalties or large surcharges being levied by the contractor. In some cases, the Navy writes incentives in the contract for meeting or exceeding the performance requirements. They also use "best value" contracts, as well as contracts with flexibility, and write such contracts with performance-oriented criteria, such as metrics and goals, instead of prescribing requirements and fixed outputs.

Ensure that all partnership participants know part of this process is to develop a long-term, mutually beneficial relationship. From the beginning, installation and community leaders and staff need to treat the partnership as a long-term endeavor, not just as an activity to develop one project. Some installations have made the mistake of limiting their partnership activities to trying one or two projects and then terminating the collaboration (whether they succeed or fail). The problem with viewing a partnership in this manner is that partners will not likely establish the communication channels, information-sharing, resource investments, and other connections that not only could contribute to the success of the project at hand but also could lead to other fruitful efforts. Installation and community partners need to place the effort into thinking about what the needs and possibilities could be in both the near and longer term in the partnership relationship.

Participants need to look beyond the challenging short-term budget issues to realize the partnership is not strictly an effort to save money, but an investment in a long-term, mutually beneficial relationship that can accomplish some of the additional benefits described in earlier sections. Once a long-term mutually beneficial relationship is established, it can also lead to additional cost savings. Some installation staff have tried to partner only because they were having budget shortfalls, rather than looking at the bigger picture with respect to the military installation's functions, needs, and long-term sustainability, and this view has limited the effectiveness of the partnership. Therefore, in sum, the partnership must be treated as a long-term endeavor that will require investment and resources and may yield a broad array of benefits.

Involve all potentially relevant stakeholders in the process. Installations need to be sure to get all the relevant stakeholders involved in the partnership process, both in the community and at the installation. This requires some up-front assessment of determining who the relevant stakeholders may be, including multiple jurisdictions of local and state governments. It is important for an installation to be as inclusive as possible, finding all the key potential partners from nearby jurisdictions, such as city mayors, and involving them early in the process of collaborating, since the direction the collaboration may take is not always predictable and the interests and resources of all stakeholders are not always completely known. For instance, installation staff involved in one PuP process realized it was a mistake not to have a local city more involved in the process early; mayors have other issues and demands on their time, so they may not give this the attention it needed. Installation staff in this case thought they should have pushed harder to get the mayor or other city staff involved sooner in the process.

It is important to get various installation staff involved early as well, especially commander support staff and other installation senior leadership (such as the garrison commander at an Army post and the wing commander at an Air Force base). In addition, different functional organizations from an installation need to be involved in partnership planning and execution meetings from early in the process because many opportunities will require expertise from and cooperation of several functional areas. Among the organizations to include are legal, mission commanders, civil engineers/public works staff, security, information technology (IT), and procurement/contracting. Cost/benefit experts and financial personnel need to be in the room when deals are being discussed. It is important to bring the public affairs office into the process, especially before any public events or announcements of the partnerships deals.

There are other potential stakeholder categories that could be affected by the process and need to be considered and involved. For instance, any installation tenants, such as other Service and other federal organizations that could be affected by partnership agreements, should be included in the process. If a partnership could affect a small business that has been perform-

ing a service for the installation, then that business's concerns should be considered in the process at some point, perhaps by involving the Small Business Association (SBA). The partnership development process is best served by being as inclusive as practicably possible, since it is not generally possible to anticipate the direction the partnership may take or all the needs and priorities of all who may be affected and the expertise required for success will draw from many functional areas. We should note that involving all relevant stakeholders can be challenging for larger and more complex and extensive partnership activities, and will likely slow the process down. However, it is important for such activities, especially when stakeholders who feel left out of the process may be able to limit or stop the partnership activities.

Facilitate partnership champions to motivate change. The organizational literature stresses the need to have a champion to help foster organizational shifts, especially given people's natural resistance to change.¹ A champion is important to have for many reasons. For one, he or she usually can convey why change is important and helps to generate enthusiasm and motivate others to want or at least be willing to try new ideas and accept change. Second, champions often have a "can do" or positive attitude and look at things in novel and creative ways. For example, in one previous successful installation partnership, a champion looked at managing facilities as assets, not as liabilities, resulting in improved facility maintenance and function. Champions usually have some decisionmaking authority or control some resources, which enables them to make change happen and be taken seriously. Installations and communities need to foster partnership champions to help develop and implement installation PuPs. Such champions are especially important at installations, which need people who can challenge old ways of thinking and not be afraid of making waves and potentially upsetting those who are strongly resistant to change. These champions need to be able to take on military bureaucratic maxims, such as requiring a small-business set-aside in installation service contracts and installations not being willing to assume any risks. For example, some U.S. Air Force (USAF) installation staff seek novel approaches by challenging assumptions by asking "Why? Show me in writing why we have to do that," and opening doors for new approaches. Other examples of such questions are: Why does a base operating support contract have to go to a small business? Why can't we share ball fields with the community?

Not only does the military need such champions at the local installation to provide direction, motivation, and support, champions are also needed at Service headquarters to help address higher-level barriers, such as policy or legal challenges (for example, the small-business contracts issues). USAF has such a headquarters champion with the AF Community Partnership Program Office; the Army has a headquarters champion with the Privatization and Partnerships Division, Installation Services Directorate, Office of the Assistant Chief of Staff for Installation Management (OACSIM). However, as mentioned in the discussion of success factors in Chapter Two, installations also need to formalize the partnership process and develop multiple communication channels so it does not break down when the champion leaves.

Develop a joint process for handling the media regarding the partnership. Military installations have formal procedures they need to follow before being able to discuss installation operations with the press. Communities often do not understand the military's political sen-

¹ Examples from the literature include: John Kotter, *Leading Change*, Cambridge, Mass.: Harvard Business School, 1996; Robert D. Behn, "Do Goals Help Create Innovative Organizations?" in H. G. Frederickson and J.M. Johnston, eds., *Public Management Reform and Innovation: Research, Theory, and Application*, Tuscaloosa and London: University of Alabama Press, 1999, pp. 70–88.

sivities about announcing things to the press and the process for clearing things with Public Affairs offices. Installations in collaboration with their partners need to establish business rules early in the process about how to handle the media. If information is released too early, it can provide misinformation that might create confusion or even distrust or other negative feelings about the partnership. Some installations have had some problems when the media published a story about a partnership activity before it had been approved by the Service's headquarters. For example, one city partner notified the press about an installation partnership project being a success before the partnership document had even been formally approved. Since changes still needed to be made before the agreement could be signed, this early public release was not accurate and created confusion and doubt in the community regarding the partnership.

Encourage on-site field trips to help develop the partnership relationship and project ideas. Early in a creating a partnership, the potential collaborators should take on-site field trips to look at what happens at each of the partners' facilities. Such trips serve multiple purposes: They help each partner understand the other's operations, strengths, needs, and where the synergies might be. By touring each other's facilities, partners start to see what they share and more staff learn about and become involved in the process, which helps develop a partnership relationship. In addition, staff can see the actual operations when out in the field and often discover potential partnership opportunities they might otherwise miss. For example, Tinker Air Force Base disposes of a lot of wooden pallets because engines are delivered on them. These pallets could be used for the Midland City compost system, a new system that needs wood. This idea was not identified until after the mutual synergies and potential benefits were discovered on a base field trip.

Once implemented, monitor and evaluate the partnership progress on a routine basis. Successful partnerships are dynamic and adaptive to changing conditions. Installations and their partners should evaluate the performance of installation PuPs over time to track progress and performance. Since local circumstances often change, or the partnership is not proceeding as originally envisioned, the partnership agreement may need to be updated, adapted, and revised based on these evaluations. Installations and their community partners should assess the status and success of PuPs at least every year (or more frequently, depending on their purposes). To this end, installations and their partners should develop clear milestones and metrics for the partnership and use them to evaluate what the outputs and outcomes are from the partnership. Key questions to ask include:

- Has the partnership accomplished what it set out to do? If not, why not?
- What benefits have the different partners experienced, including quantifiable value added?
- Do the partnership terms in the agreement or contract need to be updated?
- What lessons have been learned for future partnerships together and with other partners?

Based on this evaluation, installations and their partners should, as needed, update the specific partnership terms in the agreement or contract. Note that ideally, information-sharing and communication should occur more frequently than these more-formal evaluations so that modest adjustments can be made as the partnership proceeds.

Education and Technical Assistance Recommendations for the Military Services and OSD

Many of the challenges discussed in Chapter Seven can be addressed by the Services and OSD educating installation personnel and community members and by the military providing tech-

nical assistance to installations and partnership activities. Here we present some specific recommendations about how to do this in four main areas:

1. Military senior leaders and installation managers should communicate realistic time lines and goals to communities and installation personnel about installation partnerships.
2. Each Service should develop and implement a process for collecting consistent and structured data from partnership experiences.
3. OSD and the Services should provide communities and installation staff with a range of materials to assist them in developing and implementing installation partnerships.
4. Each Service should educate commanders and other installation managers and staff about collaborating with communities

We discuss each in turn. First, however, we should note that the USAF and Army have already started doing many of these things through the efforts of the AF Community Partnership Program Office and the Privatization and Partnerships Division, Installation Services Directorate, OACSIM, respectively. These offices should continue their work to support partnership programs and teams, provide guidance and support for overcoming roadblocks, and share lessons learned.

Military senior leaders and installation managers should communicate realistic time lines and goals to communities and installation personnel about installation partnerships. There needs to be a balance between creating immediate partnerships and the realities of the time needed to get through federal processes for developing and implementing more-ambitious partnerships at installations. Maintaining realistic expectations with communities and installation personnel, especially about time lines, is important. Service headquarters and military installation leaders and staff need to state realistic time lines with communities for developing and implementing installation partnerships, given federal processes. They also should communicate the usefulness of starting with small projects to develop relationships and celebrate successes.

Each Service should develop and implement a process for collecting consistent and structured data from partnership experiences. A large amount of innovation and diverse activities have been implemented to create new installation PuPs, especially because of the authority created by NDAA 2013 Sec. 331 and refined by National Defense Authorization Act (NDAA) 2015 Sec. 351. The Services should develop a process for collecting structured data and information (including place-specific factors) from previous partnership experiences, as well as from those that have been operating for many years. Such information can be used to develop and modify policy and guidance, disseminate practical lessons learned, and create materials for education and technical assistance activities.

First, each Service should be collecting installation agreements and contracts from existing PuPs and evaluating them for good models to help other partnership efforts. Second, the Services should have a process to collect structured data from their installation PuP pilots. Both the USAF and Army have started conducting such data collection. Such activities should include conducting follow-up meetings six months to a year after the agreement document has been signed with key participants in the partnership pilot to discuss the lessons learned and progress made. Third, the Services should survey installations about existing partnerships, especially ones that have been in place for years and even decades, to learn from previous experience. The Army did an installation partnership survey that could be used as a starting point.

Such a survey effort should be expanded and targeted toward different installation function leads—such as Department of Public Works (DPW) and Morale, Welfare and Recreation (MWR)—to capture a wide range of partnership experience. Lastly, for the partnership pilots and these previously implemented installation partnerships, the Services should document the lessons learned, including the barriers encountered and how they were overcome or not overcome, to use in developing case studies and other materials to help future partnership activities.

OSD and the Services should provide communities and installation staff with a range of materials to assist them in developing and implementing installation partnerships. First, they should provide a short introductory course and basic fact sheets on relevant federal terminology and processes, such as the Federal Acquisition Regulation (FAR) and Circular No. A-76,² and the key authorities and agreement types used for different types of partnerships. Defining and explaining such terms and processes in simple-to-understand language can help address some of the cultural differences, communications, and other challenges experienced by community and installation personnel. Second, they should document installation partnership examples and experience. Such documentation should include in-depth case studies that define terms, authorities used, and lessons learned, including how the partners addressed the barriers encountered. These case studies should also discuss the benefits to different partners, including quantifiable value added. For instance, the boxes and appendix in this document could be expanded to develop partnership case studies. This task would involve some additional effort, such as conducting in-depth interviews of partnership members about the lessons learned. DoD should also provide installations and communities with good models of contracts, MOAs, and other agreement documents based on OSD policy, guidance, and installation experience. Association of Defense Communities (ADC) conferences, web-based training modules, and other relevant forums should be used to provide the courses, documentation, and fact sheets to communities and installations.

In addition, OSD should provide a website with aforementioned materials. This process could be done one of two ways. First, OSD could build off of the Air Force and Army partnership websites to create a centralized DoD website, which should include best-practice examples of MOAs, contracts and other agreements for different installation PuP types. It makes sense for OSD to develop such a central site so installations can learn from the other Service activities. A second option is for the USAF and Army to coordinate, integrate, and advertise more directly on their websites across DoD, so all U.S. military installations can benefit from these resources regardless of which Service provides the materials, while an OSD website links to the USAF and Army websites. The Navy and Marine Corps should also be included as they develop their information.

In addition, the Services, with OSD's help, should create an installation PuP guide to help assist installations and communities with development and implementation. Such a guide would outline likely approaches and processes to use for selected functional areas. It should include detailed case studies with lessons learned. It should also provide examples of appropriate agreement and contract language for key issues, such as language for spelling out partners' responsibilities for specific costs, risks, liabilities, and flexibility for changes over time. Obviously, such a guide would use the information collected from the structured data collection of

² General Services Administration, last updated 2016; OMB, 2003a.

partnership experiences and include lessons learned from ongoing and recently implemented installation partnership pilots, as well as long-standing installation partnerships.

Service headquarters should also identify and promote installation PuPs that save the military large amounts of money or have other major benefits that could be replicated at other installations. This effort would build off the data collection activity related to new and existing partnership activities. The Services also should be sure to include information from other Service installations. Where needed and applicable, the Services should also help assist other installations in implementing similar PuPs. The AF Community Partnership Program Office has already started this process and their activities could be used as a starting point.

Each Service should educate commanders and other installation managers and staff about collaborating with communities. Service headquarters need to educate installation commanders, leaders, and staff about the importance of community partnerships, including the benefits to the mission and installation operations. For the commanders and leaders, emphasis should be placed on the importance of the long-term relationship in helping to address installation strategic and regional concerns and issues, such as encroachment and transportation challenges. Such education should also include an explanation of Sec. 331 (now Sec. 351) and other authorities that allow such partnerships. The aforementioned fact sheets and other materials should be used to help in this educational process.

The Services should include educational materials from other Services, such as other Service installation case studies. Key policy documents, such as the Air Force Policy Directive 90-22: Air Force Community Partnership Program and the Army Execution Order (EXORD) 215-13 (which provides guidance to installations pursuing intergovernmental support agreement [IGSAs]), could help in this process. Furthermore, installation partnership education should be integrated into Service installation leadership classes. For example, the Army should provide a briefing on installation partnerships at the Garrison Leaders Course.

Addressing Federal Policy, Legislation, and Regulatory Challenges

Next, we present some recommendations for DoD in addressing FAR and the other policy, legislation, and regulatory challenges discussed in the barriers section.

Recommendations for addressing FAR challenges. Originally FAR requirements could slow down the process of installations partnering with state and local governments for services using the NDAA 2013 Sec. 331 authority. That being the case, OSD, the Army, Navy, and USAF sought legislative clarification on intergovernmental support agreements. Some clarification and additional latitude was authorized by Congress in NDAA 2015 Sec. 351. Even though this legislation has clarified that intergovernmental support agreements do not have to have FAR-based contracts, there are still other types of installation partnerships where the FAR may apply (and where, as DoD policy, it may apply). To address these, OSD and the Services should provide education, training, and technical assistance to streamline, simplify, and speed up the FAR process.

First, they should provide “best in class” examples of applying the FAR to different types of installation partnerships. In addition, they could develop FAR templates for a few of the most common or desired partnership areas. Such templates could help installation and community partners better understand what they need to do for a FAR contract and help streamline the process. Services should also train contracting personnel on partnership unique issues. Timely technical assistance could be provided to those who do not have the knowledge or resources to deal with the FAR. Lastly, the Services should offer web-based training modules

or an ADC conference class on contracting with the federal government for municipalities and other partners that explains the FAR. Some educational materials provided by SBA, namely the SBA modules, could serve as a model.³

Options to address the other federal policy, legislation, and regulatory challenges. To address these other challenges, OSD and the Services could try to change the rules through legislation, but this would be very challenging politically. Instead, it is probably better to work on streamlining these federal processes, educating installations and communities about them, and providing technical assistance as needed to address the most significant barriers.

For the OMB Circulars A-76 and A-11 requirements, OSD and the Services should provide education, training, and technical assistance to streamline, simplify, and speed up these federal processes. To address these Circular challenges, similar options could be developed, as with the FAR. First, OSD and the Services should provide “best in class” examples of applying A-76 and A-11 to different types of installation partnerships or similar situations in installation contracting processes. Second, they should develop a basic template of how to apply OMB Circulars A-76 and A-11 to installation partnerships. Explaining the process in a simple, basic way in such a template would be helpful for both installation and community personnel. Third, the Services should be sure that financial and budgeting personnel are sufficiently trained on the community partnership options and how to apply these requirements in a way that streamlines partnership activities, and that trained personnel are available to provide technical assistance to installations. Lastly, the Services should offer web-based training modules or an ADC class on OMB Circulars and their relationship to installation partnerships that explains the A-76 and A-11 processes.

We have two recommendations that are specific to OMB Circulars A-11. First, the Services should ensure that A-11 budget scoring is “as objective and consistent as possible” to mitigate uncertainty introduced during the evaluation process.⁴ Second, since the unintended consequences of A-11 for federal infrastructure and other large investments are well-documented, DoD as a whole should continue to work with other federal agencies to address the challenges that A-11 presents for funding capital leases, which affect the ability of partnerships to offer cost-effective services as well.

Second, OSD and the Services should continue to provide policy and guidance regarding small and disadvantaged businesses set-asides, given the authority provided by 10 U.S.C. Sec. 2679 to ensure that installations and contracting officers facilitate and manage IGSAs appropriately. Potential community partners also have the option to collaborate with small and disadvantaged businesses; in particular, the potential community partner, where needed and legally feasible, can include small and disadvantaged businesses or AbilityOne providers within their proposals. One possible approach would be for the municipality to work jointly with these providers to enhance or expand on the work already being performed. The specifics of any approach should be reviewed to ensure consistency with the authority and DoD policy.

Strategic Recommendations for Department of Defense

OSD and Service headquarters and regions should help facilitate more regional collaboration across different military installations and governmental groups. For example, given the large

³ For more information, see SBA, “SBA Learning Center,” undated-c.

⁴ Meurer et al., 2012, p. 9.

number of military installations and existing military and community regional collaboration in emergency response, sustainability, and other areas in the Colorado Springs area, the USAF and Army headquarters staff should help facilitate more regional PuP collaboration there. Such military regional collaborations should also be explored and conducted in other regions with multiple military installations. Regional collaboration provides the opportunity to exploit economies of scale through PuPs. However, the complexity also increases, so it requires more time and investment. Such regional partnerships are even more important to an installation because of strategic long-term operational needs. Such regional collaboration processes are needed for broader regional issues, including transportation, water, energy, housing, growth, airspace, encroachment, emergency response, security, and environmental concerns. These issues are often regional ones that involve community activities on public and private lands surrounding the installation. Solutions to address challenges in these areas are integrated with community actions and involve planning and management with state, regional, and local governments; nongovernmental organizations; and, in some cases, private interests within the region.

Another strategic issue is fully assessing PuP options in relationship to a range of alternative options when facing budget pressures. If the military objective is to significantly reduce cost, a range of alternative options should be explored and assessed based on the local circumstances, in addition to installation PuPs. Installation personnel need to be creative and examine some options they may not have considered before, such as a regional collaboration that includes both public- and private-sector partners.

Another strategic consideration is DoD investing more in partnerships now for the long-term cost savings later.⁵ OSD and the Services should consider providing up-front seed money for limited installation PuP projects where there is a high startup cost. OSD's Readiness and Environmental Protection Integration (REPI) program could serve as a model for such investments. Installation PuP projects would compete and be awarded funds based on expected long-term savings, namely, a high rate of return. Just as with REPI, communities should usually provide some level of matching funds.

Conclusions

There are thousands of existing installation PuPs that occur in most nonmission functional areas and some mission areas. Many different types of PuPs have been developed and implemented within the same functional area. Installation PuPs have the potential to improve services, save money, and provide other benefits to the military and communities. Many diverse authorities and approaches have been used to develop such partnerships. Developing and implementing such partnerships requires an investment of manpower and takes time. In fact, the increasing complexity of a PuP project increases the effort to complete the deal.

Existing installation PuPs provide a wealth of lessons for future implementation of installation partnerships. In fact, many opportunities exist for future partnerships; however, a range of barriers can make it challenging to implement them. The military can improve successful PuP implementation by building off of the rich experience of implementing PuPs, providing more education and technical assistance, and facilitating more strategic regional collaboration.

⁵ It is important to note there can be difficulties in projecting specific long-term cost savings because of the evolving and adaptive nature of the partnerships.

Installation PuPs are not always going to work or be cost-effective, and they are just one approach to reducing installation costs. Other approaches exist for providing a particular function or service and should also be examined if the main objective is to reduce costs.

Lastly, installation PuPs can save costs at installations, but they are often more about long-term, mutually beneficial relationships and strategic issues than saving money. Such partnerships are strategically important to the long-term function and mission of installations.

The Presidio of Monterey Partnership

This appendix provides an overview of the long-running and comprehensive public-to-public partnership between the Presidio of Monterey (POM) and the Cities of Monterey and Seaside, California. For about 20 years, the Department of Defense (DoD) and the City of Monterey have been working together to develop and maintain a mutually beneficial partnership that began when DoD closed Fort Ord, which had been providing municipal services to the POM. Over time, modest proposals developed into a well-established working relationship that has saved money for both the installation and the city and has supported the provision of high-quality municipal services.

The Presidio of Monterey and the Surrounding Area

The POM lies within the City of Monterey. It became a separate installation when Fort Ord closed in 1994.¹ The Presidio of Monterey is nearly 400 acres with approximately 3,500 military, DoD civilian, and Coast Guard personnel. It is home to the Defense Language Institute Foreign Language Center and other tenant organizations. There are instructional buildings, a learning center, barracks, dining facilities, a fitness facility, a recreation center, a chapel, a troop store, and a small number of family housing units on the installation. The POM Annex, located at the former Fort Ord site where some military facilities remain, is eight to ten miles away in the City of Seaside. Comprising nearly 800 acres, the POM Annex hosts a reserve center, commissary, post exchange, main chapel, Youth Services Center, Army Community Service, Army and Air Force Exchange Service (AAFES) gas station, thrift shop, library, Child Development Center, grammar school, and middle school, as well as family housing.² Two other DoD installations are in the region and also have relationships with the POM and the City of Monterey. Camp Roberts, 110 miles to the south, hosts a satellite facility and the National Guard and receives some services from the City of Monterey. The Naval Postgraduate School is also within the City of Monterey, approximately two miles from the POM. Immediately after Fort Ord was closed and the POM became an independent installation, the school provided support services to the POM. Today, it receives some municipal services from the city.³

¹ Prior to 1994, the POM was a subinstallation to Fort Ord.

² The POM Annex lies on approximately 5 percent of the Fort Ord original land holdings.

³ Presidio of Monterey, “About Us,” updated April 15, 2014.

Beginnings of the Partnership

The genesis for the Monterey-Presidio partnership came out of the base closure and realignment process in the early 1990s. In response to the potential closure of the POM, the City of Monterey proposed a “Community Installation Partnership” to the Base Realignment and Closure (BRAC) Commission, which would allow the city to manage and perform select base operating services for the installation. The commission supported this proposal, and ultimately the city worked with Congress to obtain the specific authority to proceed.⁴ The 1995 Defense Authorization Act permitted a demonstration project as the following states:

The Secretary of Defense may conduct a demonstration project . . . under which any fire-fighting, security-guard, police, public works, utility or other municipal services needed for operation of any Department of Defense asset in Monterey County, California, may be purchased from government agencies located within the county of Monterey.⁵

The first projects developed using this authority were between the city and the Army. The first was a lease of several land parcels for use as a historic park and nature preserve. The city leased the land for \$1.00 per year and maintained the parks at no cost to the Army. Following this lease was the lease for three ball fields and a child care center. These facilities were upgraded, operated, and maintained by the city and were available to both Army personnel and city residents.

In 1998, a separate nonprofit organization called the Presidio Municipal Services Agency (PMSA) was established by the cities of Monterey and Seaside to provide municipal services to the POM and the POM Annex. The PMSA was created through a joint powers agreement and can be extended to include other governmental entities, and signed its first contract for municipal services with the POM in 1998.⁶ In 2003, legislation was passed that gave the POM permanent authority to contract with local governments for municipal services.

To date, there have been three separate cost-reimbursable contracts between the POM and the PMSA for municipal services (building maintenance, street maintenance, sewer and water line maintenance, storm drain maintenance, and other special projects) that have averaged around \$7 million annually. Services for Camp Roberts were added in the third contract. This is further discussed in the next section.

⁴ The initial proposal was for the Navy to close its fire stations at the Naval Postgraduate School and combine its fire suppression capability with the City of Monterey. The Navy was spending an estimated \$1.7 million per year for its two stations, while the city already had three fire stations surrounding the installation. However, the Navy did not believe it had the authority to do this, which led the city to pursue the congressional language. While the Navy ultimately did not contract with the city for fire protection services, it has since performed an A-76 analysis and reduced manning so that costs are approximately \$900,000 per year. Then, the Naval Postgraduate School fire station was closed. For comparison purposes, the city provides fire protection to the POM for a cost of \$340,000 per year.

⁵ U.S. Congress, 103rd Cong., 2nd Sess., National Defense Authorization Act for Fiscal Year 1995, Sec. 816, Washington, D.C., S. 2182, October 5, 1994.

⁶ Prior to closure, Fort Ord had a large civilian staff that provided municipal services and facility maintenance to the POM. After Fort Ord was closed in 1994, the Naval Postgraduate School provided municipal services from 1994 to 1997 through an interservice support agreement and the Fort Ord staff was not retained.

Additionally, Monterey has provided firefighting and medical response services to the Presidio since the 1950s.⁷ The Naval Postgraduate School also contracts with the city but on a more limited basis.

Partnership Activities and Benefits

As mentioned previously, the PMSA was created by a joint powers agreement between the cities of Monterey and Seaside (although others can join). It is a separate agency that is responsible for overall management and coordination of the contract between the POM and the cities of Monterey and Seaside. The PMSA has no employees and draws resources from the cities of Monterey and Seaside in an 80:20 ratio.⁸ The mission given to the PMSA by the Monterey City Council is to reduce costs to operate the military installation. The City of Monterey provides services to the POM, while the City of Seaside provides services to the POM Annex. Proposals and contracts are developed and administered by the PMSA, and each city is reimbursed by the PMSA for work performed.

The POM and the PMSA have entered into three cost reimbursable contracts, the last of which was extended through 2014. The first contract ran from 1998 to 2001, the second from 2001 to 2005, and the third from 2006 to 2011 (extended through November, 2013). The city successfully competed for the second contract after the garrison commander opened it to competitive bid, since the demonstration language was set to expire. The existing contract covers operations, maintenance, and repair for 2.2 million square feet of building space in 160 facilities in Monterey and 24 in Camp Roberts (added in the 2006 contract). These are cost-reimbursement contracts that also provide the platform for the garrison commander to access other services provided by the city. The last contract was valued at \$8.2 million.

The municipal services that have been obtained through the PMSA contract are

- facility maintenance and repair
- locksmith
- elevator, generator, and heating, ventilation, and air conditioning (HVAC) system repairs
- fire detection and alarm system
- street and storm water system maintenance
- capital improvement projects
- pest and animal control
- tree maintenance.

⁷ The permanent authority allows DoD in Monterey to purchase municipal services from government agencies located in the county. It does not provide an exception to the prohibition on purchasing firefighting or security guard services (although the city firefighting services to the POM is grandfathered in because the agreement predates the prohibition). Public Law 108-136, Sec. 343, Permanent Authority for Purchase of Certain Municipal Services at Installations in Monterey County, California, November 24, 2003.

⁸ A copy of the joint powers agreement may be found at City of Monterey, "Military-Municipal Partnerships," undated; Presidio Municipal Service Agency, *Basic Financial Statements for the Year Ending June 30, 2013*, December 2013.

Other services that are available through the city are

- traffic and parking studies
- Americans with Disabilities Act access
- planning and engineering
- refuse and recycling
- energy and water conservation.⁹

With respect to energy and water conservation, for example, the city was able to identify and install several energy and water savings projects related to the boiler systems, HVAC systems, lighting, and vending machine energy use—which, according to one estimate, led to a cost avoidance of more than \$1 million.¹⁰ These projects came about in part because the city engineering staff goes in the field with the maintenance staff to assess the facility, but also because of practices that were initiated by the partnership back in the late 1990s.

In the late 1990s, utility costs were viewed as fixed costs. At that time, the city and the Presidio staff were looking for ways to fund facility improvements, such as improved sidewalks, crosswalks, and showers. The savings that could be attained from simple investments in energy efficiency were identified as a potential source of funds for these facility improvements. While individual buildings were not metered at the time, it was clear that simple changes, such as turning off power after working hours, would reduce energy use. The savings in utility bills were then reinvested in building improvements. Later, when energy providers were offering energy-savings improvements, the city and the Presidio used already-established asset management approaches to building maintenance that had been developed within the partnership to assess the potential energy and water savings investments. They ultimately determined that it was cheaper to self-fund some of these investments, given the amortization rates that utility providers were offering. Instead of contracting through an Energy Savings Performance Contract (ESPC) for expertise and financing, for example, the city used its expertise to identify upgrades and estimate savings, finding that it often takes between six and 18 months to recover the initial investment through reduced utility bills.

As a result, the Presidio in effect “saves” the profits that an ESPC provider would have received over a typical contract commitment of ten to 15 years. The city also gains in this partnership, since it has applied the same approach to city buildings (such as the sports center, conference center, library, and community centers) to conserve energy and reduce utility bills.¹¹ Within the last decade, rebates offered by the State of California and utility companies are placed into an internal fund that may be used to help pay for other energy-savings projects. The practices that led to energy and water conservation exemplify several characteristics of a successful “partnership” relationship, such as joint problem-solving, contributing to long-term goals, and organizational trust.

⁹ James Willison, “U.S. Army Garrison, Presidio of Monterey,” briefing, July 31, 2013.

¹⁰ George Helms, “Monterey Model: Strategies for an Efficient Public-Public Partnership, Case Studies Toward Success,” briefing slides, City of Monterey, April 2013; and Hans Uslar, “Presidio Partnership: Detailed Overview by the Numbers,” presentation, ADC Public-to-Public Partnerships Bootcamp, Monterey, Calif., April 26, 2013.

¹¹ ICMA, “Local Government Partnerships for Serving Military Bases: Monterey, California,” ICMA Best Practices 2005 conference, Austin, Texas, April 27–28, 2005.

Other partnership-related activities with the City of Monterey include:

- Army Huckleberry Hill Nature Preserve (81 acres)
- Lower Presidio of Monterey Historic Park (25 acres)
- child development center
- ball fields on Soldier Field
- fire protection at Presidio of Monterey¹²
- use of PMSA contract to maintain Larkin School, leased from Monterey Peninsula Unified School District
- the POM-Monterey-Salinas Transit Partnership.¹³

There have been two estimates of cost savings resulting from the contracts with the PMSA. In 2000, after the first two years of the contract between the POM and the PMSA, an Army Audit Agency (AAA) audit determined the contract achieved an estimated 41 percent cost savings, almost \$2.5 million, over the interservice support agreement with the Naval Postgraduate School, which used in-house civilian labor.¹⁴ Later, a 2010 garrison audit performed by the Department of Public Works estimated there to be 22 percent cost savings over previous federal and commercial providers utilizing firm fixed-price contracts.¹⁵ In addition to the estimated cost savings on the contract with the PMSA, there were savings from the leases established early on in the partnership. As mentioned earlier, the parks, followed by the ball fields and child care facility, were leased to the city and subsequently upgraded and maintained by the city. Estimates of cost avoidance for these leases between the city and the POM include capital and annual operations and maintenance (O&M) costs, which are shown in Table A.1.

Table A.1
Cost Avoidance Estimates

Activity	Capital (thousands of \$)	Annual O&M (thousands of \$)
Huckleberry Hill Nature Preserve	15	12
Lower Presidio Historic Park	350	25
Presidio of Monterey Child Care Facility	508	40
Ball fields on Soldier Field	410	25

SOURCE: Fred Meurer, "Municipal Partnership Opportunities," presentation, ADC Public-to-Public Partnerships Bootcamp, Monterey, Calif., April 26, 2013.

¹² The city had been providing fire protection services to the Presidio of Monterey since 1956; when the prohibition on outsourcing of this function was established, it was grandfathered in.

¹³ Willison, 2013.

¹⁴ Uslar, 2013; Willison, 2013. A synopsis of Army Audit Agency Audits reports the first year of the PMSA contract was for \$2,276,460, compared with the Navy's costs of 4,811,022 (adjusted to fiscal year 1999 dollars); suggesting this savings may be larger, closer to a 47-percent reduction (Office of the Assistant Secretary of the Army, Financial Management and Comptroller, *Synopsis of Significant Internal Review Reports FY00—Volume II*, undated).

¹⁵ Uslar, 2013.

Reasons cited for cost savings through the PMSA contract and partnership include:

- economies of scale in use of staff and equipment for public works activities (street maintenance, sweeping, and storm drain maintenance, etc.) as well as staff for planning and assessing special issues (sustainability, efficient public works, energy and water conservation, etc.)
- the ability to draw additional public works employees during emergencies without paying a premium
- city policies and procurement processes, such as no profit charge, lack of a surcharge on materials costs, use of warranty tracking, and use of competitive bidding on city contracts
- city practices of employee cross-training in commonly used skills, rotating crews in part to generate new ideas, joining engineering staff with maintenance operations staff, and the overall culture of cost reduction and improvement
- use of activity-based cost accounting principles that facilitates cost-conscious managerial decisionmaking
- a cost-reimbursable contract, which eliminated the need to build in contingency funds to cover a firm fixed price.

The city has also benefited from the partnership in many ways. Largely due to improved management processes, benchmarking with other cities and private contractors, and cost accounting procedures required in order to perform on the POM contract, additional cost savings have been achieved for the city as well as the POM. Improved cost reporting and statistical information, for example, has aided managerial decisionmaking for considering the lease or purchase of equipment, or the outsourcing of work. Improved cost information has allowed workers to assess operations and procedures to reduce cost. For example, the city was able to use the cost accounting system to determine that the cost of maintaining streetlights could be reduced by 45 percent by creating a technician position to perform this function.¹⁶

In addition to cost savings for the partners, customer service ratings and response time data indicate that the quality of services is high and is considered “the best barracks maintenance” program in the Army.¹⁷

Success Factors

Throughout the literature on the Presidio of Monterey partnership with the city, there were several factors that were identified as facilitating the success of the partnership. First and foremost was the motivation to act presented by the threat of base closure. Second was the persistence and creativity of the staff in pursuing the approach despite potential hindrances, such as the perceived lack of authority and the preference stated in the Federal Acquisition Regulation (FAR) for firm fixed-price contracts in lieu of cost-reimbursable contracts. Once the demonstration project was under way, key contributors to success were the city’s focus on cost reduction and continuous improvement (in part motivated by term contracts and the threat

¹⁶ ICMA, 2005.

¹⁷ In March 2009, the IMCOM Inspector General, CSM Aubrey, commented that the POM has the “best barracks maintenance and management program in the Army” (Uslar, 2013).

of competition) and on hiring high-quality, well-trained building maintenance technicians. These technicians are craftsmen who are cross-trained in different function areas and have the skills necessary to address common maintenance issues, which ensures the city provides efficient maintenance services. The work order system and activity-based costing methods provide the data that supports managerial decisions. City management and staff understanding and caring about installation goals and needs was another part of this partnership's success. Finally, frequent and proactive communication between the POM (the customer) and the city staff (contract provider) were also key.

Abbreviations

ACS	Army Community Services
ACUB	Army Compatible Use Buffering
ADC	Association of Defense Communities
AFB	Air Force Base
AFRL/RQ	Air Force Research Lab, Aerospace Systems Directorate
AMC	Army Medical Center
APG	Aberdeen Proving Ground
ARMS	Archaeological Records Management Section
ARS	Air Reserve Station
ASYMCA	Armed Services YMCA
BCA	Business Case Analysis
BDA	Brooks Development Authority
BHEPP	Bethesda Hospitals' Emergency Preparedness Partnership
BLM	Bureau of Land Management
BRAC	Base Realignment and Closure
CDOT	Colorado Department of Transportation
CRADA	Cooperative Research and Development Agreement
CSEDC	Colorado Springs Economic Development Corporation
CSP	Central Shortgrass Prairie
CSU	Colorado Springs Utilities
DFAS	Defense Finance and Accounting Services
DoD	Department of Defense

DoDI	Department of Defense Instruction
DPG	Desert Proving Ground
DPW	Department of Public Works
DRID	Defense Reform Initiative Directive
EMCS	Energy Management Control System
EMS	emergency medical service
EPA	Educational Partnership Agreement
EPWU	El Paso Water Utilities
ESCO	Energy Service Company
ESPC	Energy Savings Performance Contract
EUL	Enhanced Use Lease
FAP	Family Advocacy Program
FAR	Federal Acquisition Regulation
FD	fire department
FDRHPO	Fort Drum Regional Health Planning Organization
FHCC	Federal Health Care Center
FMWR	Family and Morale, Welfare, and Recreation
FS	Forest Service
FY	fiscal year
GCPEP	Gulf Coastal Plain Ecosystem Partnership
GIS	geographic information system
GM	General Motors
HIT	health care information technology
HRMFFA	Hampton Roads Military and Federal Facilities Alliance
HVAC	heating, ventilation, and air conditioning
ICMA	International City/County Management Association
IGSA	intergovernmental support agreement

JBSA	Joint Base San Antonio
JLUS	Joint Land Use Study
LEAD	Letterkenny Army Depot
LIDA	Letterkenny Industrial Development Authority
LLP	longleaf pine
LOA	letter of agreement
MAA	mutual aid agreement
MCAGCC	Marine Corps Air-Ground Combat Center
MCAS	Marine Corps Air Station
MCB	Marine Corps Base
MEO	Most Efficient Organization
MIT	Massachusetts Institute of Technology
MNARNG	Minnesota Army National Guard
MOA	memorandum of agreement
MOU	memorandum of understanding
MWR	Morale, Welfare and Recreation
NAF	Naval Air Facility
NAS	Naval Air Station
NAVSUBASE	Naval Submarine Base
NAWS	Naval Air Weapons Station
NDAA	National Defense Authorization Act
NEPA	National Environmental Policy Act
NGO	nongovernmental organization
NIB/NISH	National Industries for the Blind/National Industries for the Severely Handicapped
NIHCC	National Institutes of Health Clinical Center
NMCRIS	New Mexico Cultural Resource Information System
NNMC	National Naval Medical Center

NSA	National Security Agency
NSWC IHD	Naval Surface Warfare Center, Indian Head Division
O&M	operations and maintenance
OACSIM	Office of the Assistant Chief of Staff for Installation Management
OEA	Office of Economic Adjustment
OG&E	Oklahoma Gas and Electric
OMA	Office of Military Affairs
OMB	Office of Management and Budget
OSD	Office of the Secretary of Defense
P4	public-public and public-private
PMSA	Presidio Municipal Services Agency
POM	Presidio of Monterey
PPM	Pacific Pocket Mouse
PPP	public-private partnership
PTSD	posttraumatic stress disorder
PuP	public-to-public partnership
PWS	Performance Work Statement
R&D	research and development
RECC	Rural Electric Cooperative Corporation
REPI	Readiness and Environmental Protection Integration
ROV	remotely operated vehicle
SANE	Sexual Assault Nurse Examiner
SBA	Small Business Administration
SHHS	Suburban Hospital Healthcare System
STEM	science, technology, engineering and mathematics
SWAT	Special Weapons and Tactics
T&ES	threatened and endangered species
TACC	Training And Community Center

TRADOC	Training and Doctrine Command
UAS	unmanned aerial system
UESC	Utility Energy Service Contract
USAF	United States Air Force
USAG	U.S. Army Garrison
USDA	United States Department of Agriculture
USFWS	United States Fish & Wildlife Service
UTA	Utah Transit Authority
VA	Veterans Affairs
WAPA	Western Area Power Administration
WBAMC	William Beaumont Army Medical Center
WDNR	Washington Department of Natural Resources
WIC	Women, Infants, and Children

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U.S. military installations have a long history of partnering with municipalities and other government organizations. The purpose of this study was to clarify the appropriate use and potential value of public-to-public partnerships (PuPs) to Department of Defense (DoD) installations, identify barriers to their cost-effective application, and recommend ways to overcome these barriers. The objectives also included providing an overview of existing installation PuPs, including their purposes and approaches, and lessons learned from their development and implementation. The authors found that installation partnerships exist in a wide range of functional areas, including infrastructure and management partnerships (e.g., water, energy, environment, transportation, operations and maintenance, safety and security, and emergency services partnerships) and partnerships involving services and support for military personnel, their families, retirees, and DoD civilians (e.g., partnerships for recreation, children's services, adult education, libraries, social services, and medical and health issues). Installation partnerships also aid military missions, such as helping with testing, training, and research and development. The authors also found that partnerships yield many kinds of benefits to both installations and communities: economic value; enhanced missions, installation operations, and support services; access to additional expertise and resources; energy and environmental advantages; enhanced ability to address regional issues; improved military-community relations; and support for community values. Partnerships require resources and time to develop, and not all partnerships will succeed. Recommendations to address the diverse barriers in developing installation partnerships include committing and investing suitable time and resources, assigning clear lines of responsibilities within the partnership, developing a well-written agreement, facilitating partnership champions, and maintaining routine communications at multiple levels. The Office of the Secretary of Defense and the Service headquarters should continue with policy support, technical assistance, and education- and information-sharing; and should promote strategic regional collaboration.



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